

**SCHOOL UNIFORM DESIGN PREFERENCES OF UNIFORM WEARERS AND  
TERMINAL VALUES ATTRIBUTED TO THEM**

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## ***(ABSTRACT)***

The beginning of the twenty-first century found American society sharply divided and American culture in the midst of tumult; the driving forces behind these changes being individualism, multiculturalism and the politics of gender and sexual orientation. As a result, social structure and what were once traditional values have been abandoned for political correctness. With reports of personal crimes committed on juveniles on school property on the rise, clearly, these shifts away from tradition have trickled down from society at large to the sphere of the public school. Students no longer are using traditional socially accepted norms and values as viable guides to their behavior (Hudak, Ander & Allen, 1980), but violence, which has become a way of attaining respect and self worth as well as material possessions. Some of the most disturbing reports that have been brought to the public's attention are those of students assaulting and robbing one another at knife and gunpoint for clothing.

The conceptual framework was that of appearance perception. Clothing and appearance are extremely important to children in their efforts to compete as well as to successfully fit in with their peers. Many school reform efforts have implemented school uniform policies as a way of building a sense of unity and belonging among students, as well as a way of controlling behavior. However, despite the numerous studies that have attempted to show that nonverbal communication may form impressions of personality, character traits, and intelligence, none have focused on school uniforms and their reflection of the personal values of the wearers.

This study determined the uniform preferences of uniform-wearing students for middle school children, and described the five terminal values that these students attributed to uniformed students. This research also determined whether there were significant differences between the

probabilities of males and females having the same perceptions of the terminal values attributed to uniformed students, because research has shown that these perceptions have a direct effect on style preferences.

The sample was comprised of 85 students between 18 and 21 years, who attended a military institute of higher education in which they were required to wear uniforms on a daily basis. Respondents completed a three-part questionnaire, which consisted of: (1) Rokeach Value Survey, (2) demographics questions, and (3) wearer preference measure. The instrument was pilot tested for content validity before it was administered to the sample. Data were analyzed using Pearson Chi-squares and frequencies.

The chi-square tests revealed no significant differences in the probability of males and the probability of females selecting the same terminal values for uniformed students. Examination of frequencies determined design criteria for males and females uniform design as well as the five core terminal values attributed to uniformed students.

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# CHAPTER 1

## Introduction

The beginning of the twenty-first century finds American society sharply divided and American culture in the midst of tumult; the driving forces behind these changes being individualism, multiculturalism and the politics of gender and sexual orientation. As a result, social structure and what were once traditional values have been abandoned for political correctness.

These shifts away from tradition have had the most profound effect on the structure of the American family. Since the 1960s, the percentage of female-headed households has increased tremendously while the percentage of households with married couples has declined. These changes in family structure are most dramatic if the living arrangements of children are examined. In 1960 for all children under the age of 18, 90% lived in married couple families while 6.1% resided in female-headed families (US Bureau of the Census, 1991). In contrast, by 1990, 72.5% of all children under 18 years of age lived in mother-only families (US Bureau of the Census, 1991). Research shows that this trend has potentially serious implications for the emotional and social well-being of children in America, as the lack of family roles and relationships implies an absence of control which increases the probability of children engaging in compromising behaviors.

Children from broken homes or unstable home environments where there is marital discord among family members or a single-parent household, usually go through a process of socialization that is different from those children coming from two parent families. Unstable home environments provide less opportunity for creating a strong attachment between child and parent(s) because of the absence of control and thus reduce the parent's ability to condition the child to internalize conventional rules (Wilkinson, 1980). Other research shows that persons involved in relationships within the family are more likely to conform to norms because deviation threatens them; thus, the structure of family life and the quality of parental attachment determines the likelihood of a child's engagement in deviant behavior (Wells, 1978).



Delinquency may be viewed as a condition in which traditional socially accepted norms and values have not been incorporated or personally internalized as viable guides to individual behavior (Hudak, Ander & Allen, 1980). Therefore, delinquency is a condition whereby a breakdown in the socialization process has occurred. Socialization, or the integration of the child into the social mainstream, is a dynamic process that is characterized by the development of socially accepted value patterns (Rokeach, 1973). Delinquency is more likely to occur when normative development is incomplete, and when children are unable to distinguish right from wrong, feel little or no obligation toward standards of behavior and have little respect for the rights and welfare of others (Wells, 1978).

A direct effect of the breakdown of the socialization process is evident in public schools, where the risk of student victimization on school grounds is rapidly on the rise. In 1991, personal crimes with juvenile victims occurred most often in school or on school property (Snyder & Sickmund, 1995). Many students reportedly have witnessed incidents of physical attack, robbery or bullying, and younger students appear to be at a greater risk for victimization (Snyder & Sickmund, 1995). Some of the most disturbing reports are of students assaulting and robbing one another at knife and gunpoint for brand name clothing.

The problems related to clothing and youth appearance are not new to many schools. These problems are not only related to the physical safety of students on school grounds, but to academic performance and most importantly school moral. School officials feel that the problem stems from individual pressures to fit in or belong to a peer group. They argue that these pressures have not only affected student performance and cooperation within the classroom and school grounds, but also the ability of schools to educate. Researchers agree with school administrators on the one hand that a lack of student focus and peer pressure fuel these problems related to appearance and clothing, but on the other hand, they blame the emotional and social detachment of students from their peers and society as a whole.

### Significance of Study

Today's youth are caught up in a culture that endorses violence. Feeding this climate is a readiness to use violence as a means of resolving interpersonal conflict. These beliefs have transformed many school grounds into battlegrounds. Subsequently, many school reform efforts

have included introducing conflict resolution skills training in the curriculum, strictly enforcing rules, increasing police surveillance, locking school doors during school hours, installing metal detectors and implementing school uniform policies, as a way of returning to a safe school environment (Stanley, 1996). Physical safety is a necessity in the classroom if students are expected to learn, and school uniforms are one of the strategies being used by this nation's public schools to restore order.

School uniforms support many of the principles middle level educators are working hard to establish. The middle school restructuring effort seeks to create a positive climate where students are safe and supported. Uniforms increase student affiliation with the school and improve school spirit and pride (Stanley, 1996). Middle level restructuring also seeks to create a developmentally appropriate atmosphere. Uniforms can ease many of the pressures on students, which make this a particularly difficult growth period. ). Schools need to create an environment in which students can feel comfortable and connected to the school, and uniforms have been found to be an effective part of such efforts.

Some students view school as an arena within which to display the latest fashions and students have been killed or gravely injured by other students who want what they are wearing (Caruso, 1996). Competition over appearance can result in taunts, fights, thefts, and even murder. This occurred not only among enrolled students but also among non-enrolled peers. Students whose families cannot afford to buy them the clothes they want may turn to illegal activities to get the money to buy these items.

In schools plagued with gang activity, gang members communicate with one another via color-coded clothes. Some urban school principals have banned items of clothing chosen by the gangs as a way of keeping such activity off campus. School uniforms appear to produce similar methods of color-coded communication. School uniforms have also been reported to increase student attendance and cut down on the number of distractions that keep students from concentrating on their education by eliminating the competition to have the most desirable clothing (Caruso, 1996). When all students are wearing the same outfit, they are less concerned about the way they look and how they fit in with their peers; thus, they can concentrate on their schoolwork. Uniforms have also been reported to increase student self esteem and confidence as students may

develop strong feelings of inferiority when they feel they do not have the appropriate clothes (Caruso, 1996). Students are often prejudiced against classmates who do not have clothes with popular brand names or who wear hand-me-downs. These attitudes, whether deliberate or accidental, are most often destructive to those who hold them and are devastating to the recipients at whom they are targeted.

Finally, and perhaps most importantly, school uniforms can improve classroom behavior and also create a feeling of belonging within the school (Caruso, 1996). Sociological research has found that the context of the elementary school or the junior high school can have specific and lasting effects on psychosocial adjustment during puberty. The transitions to the impersonal world of the junior high school may be difficult for pubescent children (Simmons & Blyth, 1987). Multiple biological and social events are associated with an increase in problems of adjustment (Simmons, Burgeson, Carlton-Ford & Blyth, 1987).

Psychologists agree that clothing and appearance influence individual and group behavior (Caruso, 1996). Clothing can provide clues to the status of persons or groups as well as being a reflection of values. Values are standards that throughout the course of life and because of on-going changes in society are differentially reinforced by society, society's institutions, and significant reference persons and groups. Therefore, values are wholly capable of being continually arranged and re-arranged as they are applied to the self, others, and clothing perceptions (Ball-Rokeach, Rokeach & Grube, 1984). Personal values are thought to represent beliefs about desired goals that are developed as a result of socialization processes (Rokeach, 1973). Values would appear to more directly reflect differential socialization pressures faced by males and females than do traits, role behaviors or interests. It is also important to note that personal values, unlike traits and role behaviors, possess significant motivational features that are likely to energize, select and direct behavior in the future (Kaiser, 1997).

Research shows that uniforms not only build the feeling of unity and belonging, but also encourage students to live up to a group standard (Caruso, 1996). Many teachers in schools that have enforced dress codes have found that there has been a decrease in the amount of time spent on classroom discipline issues since the institution of school uniforms (Holloman, 1995). In many

cases, teachers report that they need not look for violations of the uniform policy because the students police themselves and report violations to administrators and teachers.

Therefore, through the implementation of school uniform policies, schools may become effective instruments of socialization and deterrents of delinquent behavior by creating a level social field for students. Designer labels, gang fashions and other age inappropriate dress may be avoided. Uniforms may also lessen the demands on parents to purchase the latest fashions.

### Purpose of the Study

While most uniform programs, especially at the middle school level, were developed out of a need to minimize gang influences, there are benefits of school uniforms, which serve the interests of all middle school students. These benefits of school uniforms that serve the interests of all middle school students include the control of behavior and the reduction of distractions due to clothing differences among students. Schools may emulate a number of important social organizations that have had uniforms for many years, such as the military. Military organizations demand a high standard of dress and appearance from their members. In this context, the uniform plays a major role in demonstrating power, rank and governmental authority assigned to the individual. The uniform must convey an image that inspires public confidence and which will express the fact those members live by common standards and are responsive to military values. However, despite the military history behind uniforms, no research has been conducted on school uniform preferences using participants with military uniform experience. The participants of this study attended a military institute within the framework of a major land grant university and wore uniforms on a daily basis. These participants were considered professional uniform wearers.

The reasoning behind using this type of participant in a study on school uniforms derived from the military concept that the group is of greater importance than the individual. This concept was supported by the first function of a uniform, which Joseph and Alex (1972) hypothesize is a group emblem and therefore a symbol of all the group's values. The uniform and the group are considered a unit, in which the uniform is the main target of thought rather than the group itself. These participants were important to this study because of their personal experience of wearing school uniforms.

The answers to the question of how to develop a successful uniform policy revolve around the parents. Without the support of parents, any efforts to implement such policies are ill fated because the Boards of Education in the school districts would not approve the policies without full parental support. That is why this study is the first part of a larger study that focuses upon parents, teachers, experienced wearers and students to develop an interactive or participatory uniform design system for schools that want to select uniforms for adoption. To this end, the Philadelphia school system (Johnston, 2000) that became the largest district in the country to require school uniform, left the individual school boards to determine what will be considered acceptable uniforms. This school system would have benefited from the interactive or participatory uniform design system, which this research aims to develop.

Although there has been very little research on the expression of values through appearance, there is evidence that that some types of values or goals are displayed through appearance and dress. This research examined terminal values that participants attributed to uniformed students, and determined whether gender was a contributing factor in these value selections. This research further described the uniform design preferences of uniform-wearing students, which ultimately became the limited design criteria for middle school males and females school uniforms in this study.

## CHAPTER 2

### Review of Literature

A study of the school uniform preferences of uniform wearers and terminal values attributed to them necessitates a review of literature related to personal values, adolescent clothing behavior patterns, uniforms, students' attitudes and perceptions towards uniform adoption, and wearer preference measures.

#### Personal Values

The characteristics of a child can be conceived as outcomes of the process of socialization. Values and attitudes are constructed prior to actual behavior. Mental ability is probably closer to actual behavior than are attitudes and values. The child's cognitive ability is to a great extent genetically determined but is also influenced by the environment (Martens, 1984). It is well accepted that the parents' expectations have a powerful effect on the child's academic performance. Cultural background not only influences family beliefs about the value of education, but may affect how academic expectations are communicated by parents and perceived by children (Chen & Lan, 1998). The child's educational values, cognitive ability, and school performance are complexly related. Values that influence performance may be seen as a basis for shaping educational values (Martens, 1984).

In 1998, Chen and Lan conducted a study that examined differences in the willingness to conform to parents' expectations of academic achievement as perceived by American, Chinese-American, and Chinese high school students. Both culturally and historically, China and America have very different backgrounds. American children are usually encouraged to become more independent than are their Chinese peers. Weggel (1987) concluded that the Chinese base their behavior more on group norms and traditional values than Americans, who are geared toward individualism and autonomy (Krumm, 1988). The sample consisted of 185 Chinese, 140 American and 39 Chinese-American tenth grade students from four high schools. The instrument used was made up of a 20-item questionnaire, which was administered by the subjects' teachers. The results of the study showed that there were very insignificant differences between Chinese students and Chinese-American students in their perception of parents' academic expectations, as was the case

between the American students and Chinese-American students. The researchers attributed this finding to the recent “open-door” policy adopted by China, which brought not only a great deal of foreign investment but also the influence of Western culture (Chen & Lan, 1998). Parental expectations do influence children’s academic performance, but these expectations have little effect unless they are communicated.

Consequently, parents and other significant members of society employ language to transmit society's values to succeeding generations. The language of values is the means that is used to communicate societal demand (Ball-Rokeach, Rokeach, & Grube, 1984). These shared values ultimately become internalized as the standards for judging the self and others. However, values do not reside within the person or in an external object; rather, they emerge from the interaction between a particular person and a particular portion of the environment. They are not direct objects of observation. A statement of the values operating in any particular situation derives from observations of visual and verbal behaviors (Ball-Rokeach et al., 1984).

Values develop and are learned by each person to serve a dual purpose: they are the cognitive representations of societal demands, on the one hand, and of individual needs, on the other (Ball-Rokeach et al., 1984). Such dual representations become possible only because there are certain symbols within each language - those that we identify as values - that transform individual needs into shared goals and modes of behavior that can be justified, defended and passed on to succeeding generations (Ball-Rokeach et al.).

Appearance communication is the meaningful exchange of information through visual personal cues. Mutual processes of appearance management and appearance perception contribute to appearance communication (Kaiser, 1997). Person perception research has yielded results that indicate that physical appearance is an important variable in the perceiver’s judgment of such things as individual character or abilities (Behling, 1994). A halo-effect appears to be operating, when an attractive person is perceived as more sociable as well as more accomplished at performing a task than an unattractive person (Behling, 1994). Kaiser (1990) described this halo-effect as a cognitive process that takes place once the perceiver has interpreted an appearance cue.

In 1994, Behling conducted a study on the perception of school-related behavior and scholastic ability according to clothing style, type of school attended, sex of model shown in photograph, and the status of the perceiver. Two hundred and seventy high school sophomores and 20 teachers from two Ohio schools participated in the study. Each participant was given a questionnaire that was made up of eight photographs of ten male and female models dressed in four clothing styles (dressy uniform, casual uniform, dressy, and casual). Each photograph had three scales that participants used to assess the photographed model. The scales measured each participant's perception on the photographed model's behavior, estimated grade point average and the highest education each model would attain based on his or her appearance.

Analysis of the data show that school uniforms, or a uniform style of dress, positively influenced the perception of school-related behavior by both peers and teachers. This was true of participants in both schools. Therefore, a school uniform, whether dressy or casual can positively affect peers' and teachers' perceptions of students' academic abilities and school-related behavior. In this case clothing produced a "halo-effect," whereby students in uniform were seen as better behaved, higher academic achievers, and with academic potential, particularly when they wore a dressy uniform.

Values underlie this intricate process of appearance communication. Both the observed persons and the perceivers bring unique qualities, past experiences, and frames of reference to social interaction. According to Kaiser (1997), values have four characteristics, they are: (1) stable; (2) foundation for personal goals; (3) expressive; and (4) receptive. Rokeach (1973) categorized values into two types: (1) terminal values, which are general goals or end states of existence, and (2) instrumental values, which are modes of conduct. Both types of values may be assessed using the Rokeach Value Survey (RVS), a widely used instrument that requires individuals to rank in order of importance personal value statements. Personal value statements have two important characteristics that are directly linked to appearance communication:

- (1) They provide the means for the expression of one's own preferences and evaluation.
- (2) They are a combination of context and perspective that express personal values which inherently influence aesthetic experience (Kaiser, 1997).



Individuals prioritize value statements differently, and they may be integrated into larger systems when they are critically connected in one's outlook (Kaiser, 1997). A value system involves a grouping of values that are integrated within one's perspective. Values are organized into hierarchies within value systems, and individual differences are readily observed in value hierarchies. Such individual differences arise as a result of differences in culture, differential influences of society's several institutions, a person's structural position in society, and differences in sex, age, group membership, occupation, lifestyle, and personal experience (Ball-Rokeach et al. 1984). Moreover, differences between terminal and instrumental value hierarchies can be made. The difference being that terminal value hierarchies have prioritized end states of existence; while instrumental value hierarchies consist of prioritized modes of behavior perceived to be instrumental to the realization of various end states of existence. Such hierarchies, like values, are assumed to be relatively stable, but not static (Ball-Rokeach et al. 1984).

Values are standards that are differentially reinforced by society and its institutions because of on going changes. Therefore, values are wholly capable of being continually arranged and re-arranged as they are applied to the self and others (Ball-Rokeach et al. 1984). Because individual values are embedded within value hierarchies, rather than existing in isolation, a person is forced to continually compare the relative importance of the values in his or her value hierarchy. It is such continuing comparisons about their relative importance that make human values so vulnerable to change.

Thus, as these values and value hierarchies develop during childhood out of individual needs and coordinated societal demands, they become the standards that are applied simultaneously to oneself and others (Ball-Rokeach et al. 1984). When applied to oneself, they are crucial to the formation of a self-identity, or attitude toward self, a set of beliefs organized around the self that become increasingly the most central of all components within one's belief system. When applied externally, value hierarchies guide the formation of countless favorable and unfavorable attitudes toward external persons or objects encountered directly or indirectly (Ball-Rokeach et al.).

Clothing is probably one of the most tangible expressions of an individual's value system. Clothing represents only a part of this system but gives cues as to the values a person holds. Clothing behavior reflects a person's acceptance or rejection of his or her social environment

(Kaiser, 1997). In studies in which clothing has been examined, findings have shown that clothing is a critical component of person perception. In 1975, Connor, Peters and Nagasawa studied the effects of person and clothing on the formation of first impressions of females by their peers and found that dress had a greater effect than the person on impression of sociability. Researchers have also indicated that the halo effect produced by clothing occurs at an early age. Parr and Halperin (1978) reported that by the second grade 75% of the students in their sample believed that clothing communicated something about the wearer. Behling and Williams in their 1991 study on the influence of dress on perceptions of intelligence and expectations of scholastic achievement looked at male and female high school students' and teachers' perceptions of male and female models in various dress styles. Their results show significantly higher perceptions of academic potential for the models dressed in either suits or preppy clothes. In addition, the researchers reported that the means for perceived grade point average and potential academic achievement were higher for the male model than for the female model in most clothing styles.

In essence, clothing is a means of communication and communication is carried out through signs. The degree of emphasis one places upon different values is often expressed through the way one dresses.

### Clothing Behavior Patterns

Throughout much of recorded history children's clothing has been a miniaturized version of adult clothing. It wasn't until the Englishman John Locke proposed in 1690 that children should wear comfortable clothing that do not restrict movement and that they should play freely outdoors, that the English put his ideas to practice (Payne, Winakor & Farrell-Beck, 1992). Other western European countries, such as Spain and France closely followed suit, and had their children dressed in clothing different from those of adults.

By the late 1940's and early 1950's, marketers realized children composed a separate market segment and began to target them directly. Saturday morning television made it possible for marketers to effectively aim promotional messages at this market segment (McNeal, 1987). Today, the fastest growing market sector in the United States is comprised of children, preadolescents and teens (Simpson, Douglas & Schimmel, 1998). According to Teen Research Unlimited (1991), adolescents in the United States spent \$82 billion on goods and services in 1991 alone. Early

adolescents have noticeably greater spending power and responsibility due to the increased numbers of dual-income and non-traditional families. Families tend to have more disposable income but less leisure time, and often the responsibility for making purchases is passed on to children (Simpson et al. 1998). Not only do marketers realize the spending power of early adolescent consumers, but they have also capitalized on the knowledge that during this period the adolescent is particularly susceptible to peer pressure and conformity. These factors, along with adolescent developmental issues, make these young consumers an important consumer target market.

Other factors that have been associated with conformity are the need for acceptance, approval and good relationships with others (Batra, Kahle, Rose & Shoham, 1994). Many studies have shown that wearing certain types of clothing, especially brand-name clothing, to be a viable form of “fitting in” for the adolescent, and it has been suggested that a barrier to social participation among adolescents is perceived clothing deprivation (Francis, 1992). These results are consistent with the noticeable surge in competitiveness among American adolescents for the latest and most expensive brands of clothing (Bellezzo, 1991; Sanchez, 1991; Stern, 1990). Simpson et al. (1998) compared the catalog shopping behavior of students in their early and late teens. The study sought to look at the label information and product-specific attributes considered when shopping for clothing in a catalog. An instrument in the form of a self-administered questionnaire was developed to realize the objectives of the study, 272 junior high and high school students comprised the sample. Label information was sought by asking students to indicate on a Likert scale how often they used certain information (i.e., price, size, fiber content, care instructions, and brand name) to help them decide what clothes to shop for in a catalog. Similarly, product specific attributes were sought in the form of asking students to indicate using a Likert scale how often they used product-specific attributes (i.e., how the clothes fit the model in the catalog picture, how the respondent thought the clothes would fit him/her, style, price, care instructions, color, brand name, other clothes the respondent already had, the latest fashion, and catalog name) in determining what clothes to buy in a catalog. The results indicated that the early adolescents in this study were more concerned with brand name, style, and the latest fashion than were the older adolescents. In addition, a higher percentage of early adolescent males, as compared to their female counterparts, considered brand names important.

What is most important to note here is that during the period of adolescence, teenagers are breaking away from dependence on their family and trying to establish themselves, successfully or unsuccessfully, in their peer group culture. In choosing friends, adolescents tend to pick those who are like them. Friends tend to be chosen from the same class, race, and ethnic group and from those who are approximately the same age (Dornbusch, 1989). Bjorngaard (1962) studied 106 ninth grade girls to determine the relationship of social class, social acceptance, and behavior to clothing and appearance. She found a strong consensus that appearance was important to acceptance. Appearance responses were frequent in the judgment of a new female friend. The characteristic most frequently used to describe the popular girls was the appearance response "well-dressed".

Within any given social context, we read clothing often unknowingly, in terms of social statuses and relationships. Adjustment to acceptable clothing behavior is an integral part of this peer culture. Hamilton and Warden (1966) concluded from their study of teenage boys and girls that the clothing behavior of boys was more influenced by their families while the clothing behavior of girls was more influenced by their peers. Simpson (1959) described the need of the adolescent to develop a clear status and gratifying self-image by gaining recognition from his or her peers on the basis of peer group values. However, he indicated these values dictate that the adolescent does not just conform but rather establishes his or her own uniqueness in the process. While adolescents may conform to the prevailing style to show their identity with the group, they want to symbolize the fact that they are not just like everybody else.

Appearance, perceived attractiveness and academic success have also been shown to influence the peer acceptance of early adolescents. In a study conducted by Boyatzis, Baloff and Durieus (1998) on the effects of perceived attractiveness and academic performance on ninth graders' ratings of peers popularity, 270 ninth graders between the ages of 14 and 15 years, judged the popularity of a hypothetical peer who was to work as a project partner with them. The partner was described to each ninth grader as fitting one of the following four descriptions: attractive with good grades, attractive with low grades, unattractive with good grades, or unattractive with low grades. Each student received a description of the hypothetical same-sex peer whom they were assigned to complete a school project with that contained generally positive terms. Findings from the study indicated that to ninth graders, a peer's attractiveness or appearance was a more critical

determinant of popularity than was academic performance. When the peer's attractiveness was high, his or her popularity was high, regardless of academic performance. When the peer's attractiveness was low, his or her popularity was low, regardless of academic performance. Similarly, whether unattractive partners had high or low grades, it had an insignificant effect on their popularity. The findings in this study corroborate the findings of several earlier studies. Brown et al. (1986) found that in the ninth grade, ninth graders felt more pressure to conform to appearance norms set by their peers than to the norms established by adults (such as good grades). Results from the Boyatzis et al. (1998) study, extended the findings by Brown et al. by showing that at the start of the high school years, teens were more concerned with their appearance than with their academic qualities.

The direction of these peer influences on appearance was as likely to be positive, as it was negative for the adolescent. Peers were more likely to reinforce existing attitudes than to produce new forms of behavior (Dornbusch, 1989). The similarity in attitudes or behavior was, however, just as likely to be a product of selection as it was an indicator of peer influence (Dornbusch, 1989). The adolescent was an active participant in the selection of peer groups –there was a reciprocal relation between the qualities of the group and the qualities of the adolescent (Bukowski, Newcomb & Hartup, 1996).

In the world of the adolescent, there is no greater preoccupation than that of body image and appearance. For the past 30 years or so, ultra-slenderness has epitomized the ideal female body shape. The changes that are already occurring in their bodies are enough cause for extreme concern for many adolescents. Some of the physical changes that occur during puberty have social meanings that are largely unexplored. Among adolescent children of the same age, for example, taller children are expected by adults to display greater social maturity (Brackbill & Nevill, 1981). Among adolescent boys, height is positively associated with educational expectations among parents and the adolescents themselves (Duke, Carlsmith, Jennings, Martin & Dornbusch, 1982). These expectations, related to physical changes occurring during puberty, often shape social interactions and have long-term effects.

Physical attractiveness is defined and measured in a wide variety of ways. A study conducted by Perkins and Lerner (1995) examined the relationship between physical attractiveness

and psychosocial functioning in 157 young adolescents. The study began by looking at multiple indicators of physical attractiveness such as facial and full body ratings that had been derived from physician-administered physical exams. Variables relating to adolescent psychosocial functioning were taken from measures of academic performance such as the grade point average (GPA) and teacher's rating of performance in school. Two group leaders conducted the administration of the measures in groups of ten students. In addition to the measures, photographs were taken of the students, and physical exams of each individual followed the group testing. Teachers responded to a similar set of measures within two weeks of the testing of the participants.

Analyses of the data showed that perceptions of greater facial and full-body attractiveness were related inversely to the presence of more height, weight, and skin fold thickness. This finding supports findings from past studies that have concluded that heavy individuals are thought of as less attractive than individuals of average weight. The inverse relation suggested a number of possible explanations, one of which is that as children grow up and lose some of the physical features associated with childhood, they appear less attractive. The analyses also strongly supported the fact that facial physical attractiveness may be regarded as a sufficient measure of physical attractiveness, because it was the most frequent predictor of the outcome variables of both females and males. Thus, the present findings provided support for the notion that physical attractiveness is associated with males' psychosocial functioning as it is with females' psychosocial functioning, at least at this stage and among young adolescents of the racial, ethnic, and cultural background of the participants.

It is not unusual therefore that many researchers have found high dissatisfaction with body weight among adolescents, particularly among adolescent girls (Page & Allen, 1995). Sexual maturation brings body fat to young girls, and this does not conform to the cultural values that promote thinness. The results are processes, positively associated with social class, that find young women denigrating the results of normal sexual development (Dornbusch, 1989). By the time they are sexually mature, one half to three quarters of all women want to be thinner than they are (Dornbusch, Carlsmith, Duncan, Gross, Martin, Ritter & Siegal-Gorelick, 1984). Today the emphasis on female thinness is stronger in the higher social classes, but present even in low-status groups in industrial societies. The prevalence of eating disorders among adolescent girls of higher status is probably a product of the interaction of pubertal developments and social standards.

Rogers, Resnick, Mitchell and Blum (1997) conducted a study that examined the relationship between parental socioeconomic status (SES) and clinically significant eating-disordered behaviors among adolescent girls. This study was based on a statewide survey of public school students in grades 7 through 12. The survey included 148 questions about a variety of issues including health status and health care utilization, personal worries and concerns, sexuality, emotional distress, drug and alcohol use, and other risky behaviors. There were a variety of questions focusing on height and weight, body image, weight satisfaction, eating patterns, and dieting behaviors including eating disordered behaviors. The survey also included a number of questions about family composition, parental education, and parental employment in order to assess socioeconomic levels.

Results indicated that there was a significant relationship between parental socioeconomic status, body mass index and body dissatisfaction for the adolescent girls who participated in the survey. There was no socioeconomic status variation in frequency of dieting when body mass index was controlled. While extremes in body mass index and body image may be risk factors for the development of an eating disorder, the relationship between socioeconomic status and actual behavior was far less relevant when diagnostically significant behaviors were examined. Findings also indicated that having a body mass index of less than 17 and behaviors such as vomiting at least twice a week, fear of loss of binge eating, and/or the use of diuretics and laxatives to control weight, a person was more likely to have symptoms of a psychiatric disorder than normative expressions of body dissatisfaction and a desire to lose weight. Results suggested that, while parental socioeconomic status may be related to body shape and size; unhealthy dieting, body dissatisfaction, and experimenting with unhealthy ways to control weight, were other more salient factors that contribute to the development of anorexia nervosa and bulimia nervosa. Dieting and body dissatisfaction may be necessary for the development of eating disorders, but results from this study suggested that they are not sufficient and that the additional contributors to the development of eating disorders are not class restricted.

There is little dispute that the high prevalence of weight concerns and dieting among adolescent females is well documented, and perhaps it is because they were previously attributed to Caucasian, middle-to-upper class females. Less is known about the prevalence of weight concerns, dieting, and unhealthy weight control behaviors among individuals of other races, or of various socioeconomic groups. The few studies that have examined race/ethnic differences consistently

showed that black females were less likely to view themselves as overweight were more satisfied with their body size and shape, and were less likely to be dieting compared to white females (Wilson, Sargent, & Dias, 1994). In 1995, Story, French, Resnick and Blum directed a study that documented the extent to which perceptions of body weight and shape, dieting, and unhealthy eating and weight control behaviors differed among adolescent youth of various ethnic and socioeconomic groups. The sample comprised of 17,545 females and 16,852 males aged 12-20, of which approximately 86% were white, 8% black, 1% Hispanic, 2% native American, and 3% Asian American. Dieting, binge eating, weight satisfaction, body image perceptions, feelings about one's weight, and body weight self-evaluation were assessed with a series of questions.

The results of this study showed that unhealthy weight control behaviors were not confined to upper class white females. Consistent with previous studies, higher rates of body satisfaction, lower perceptions of overweight, and less dieting were found among black compared to white females. These findings may be due to more tolerant attitudes toward weight and less definition of attractiveness in terms of weight in the black culture. It was also found that females with higher socioeconomic status dieted more frequently than females with lower socioeconomic status, and this same group of females was also less likely to perceive themselves to be overweight. However, among both females and males, higher socioeconomic status was associated with greater satisfaction and pride in one's body, and with lower rates of irrational weight control behaviors such as vomiting.

While much less attention has been paid to the subject of men and body image, reports suggest that cultural attitudes to the male body have also undergone a change. In recent years, there has been a strong emphasis on the desirability of a lean and highly muscular body. Increased attendance by men at exercise facilities and diet clinics, the current popularity of competitive body building, and the growing market in male cosmetics, suggested that men are moving further along a continuum of bodily concern than in previous generations. The adolescent male is vulnerable to the pressure to attain the ideal male body. The desire to achieve this image may have induced some adolescents to participate in athletics in general.

Findings from the studies reviewed on body image and appearance revealed that culturally accepted values of physical attractiveness not only directly influenced body satisfaction among



adolescents but also had an effect on their acceptance by their peers. Initially, some schools had uniform codes by tradition, however, today uniform policies are being instituted into many public schools primarily for student safety. Since the mandate that its students wear uniforms, some school systems have seen decreases in absentee rates, suspensions, campus assaults and a rise in school morale. Students will generally behave as well as they addressed, this correlation between dress and behavior has been seen time and time again. When in uniform, the student is required to play the role of a student, which in turn helps them focus on learning. This research examined terminal values that participants attributed to uniformed students and determined whether gender was a contributing factor in these selections.

Among junior high school students, Forney and Forney (1995) have suggested that clothing, appearance, and acceptance by peers become so important that adolescents may look to gangs for social cues, including dress. It has also been reported that some children have invented their own status symbols by leaving the price tags on clothes, hats, and shoes (Torchia, 1991). This competitiveness has often resulted in children selling drugs, shop lifting, and even resorting to violence in order to obtain the latest fashion items (Richardson, 1991; Sanchez, 1991). Children whose families could not afford the most expensive brand of the latest fashions were not able to compete, and often resorted to violence on and off school grounds. This type of situation not only endangered the child's life but also made the school's grounds a dangerous environment. Teenage schoolgirls' opinions about the relationships between clothing and school behavior were examined (Wass & Eicher, 1964). Over eighty percent of the subjects thought that certain types of clothing caused them to act a certain way, and two-thirds of the subjects believed that students behaved better on special dress-up days. The school from which the sample was taken had no official dress regulations. Even though students could choose what they wore to school, investigators found that 83% of the sample thought they had rules and 80% thought a school should have a dress code. The idea that certain types of clothing caused them to play a role was held by 80% of the sample, which cited the example of their behaving better and being more self-confident when they were well dressed. They suggested that certain roles required specific clothing.

David Elliot (1984), an assistant principal at a junior high school in Beavercreek, Ohio, supported student dress codes and uniforms to improve student behavior and they resulted in a better learning environment. Other educators also believed uniformity in dress would control

behavior, reduced distractions due to clothing differences, and turned student energy to education (Roach, 1969). A benefit of instituting uniforms may be that students would be judged by how they acted and not by what they wore (Sanchez, 1991). Conformity in dress has been encouraged by many school systems as a way to improve safety and discipline. Many major cities like Baltimore, Cincinnati, Detroit, Los Angeles, Miami, Memphis, New Orleans and Seattle have already adopted school uniform policies. In Dallas, Texas, parents have complained about the prices of designer clothing and also requested similar uniform policies implemented in their children's schools. A public school in Manhattan has incorporated uniforms into the school (Lewis, 1988). The assistant principal of that school reportedly believed the uniform would improve discipline and the climate of the school. School uniforms may aid in alleviating the problem of children competing to be the best dressed. In the school year beginning in 1999, 670 New York public schools required school uniforms. Preliminary reports indicated that the policy appeared to boost student morale.

### Uniforms

The uniform lends itself to a variety of controls. Not only does the uniform identify group members, but it also helps to insure that the organizational goals are attained, and to order priorities of group and status demands for the individual (Joseph, 1986). The uniform also enables a group to exert a degree of control over its members who must carry out the goals of the organization. Therefore, individuals must reconcile the often-conflicting demands imposed by their affiliations and statuses. Uniforms enlist the public as external censors to enforce organizational codes (Joseph, 1986). In 1972, Joseph and Alex outlined the following four principles as important characteristics of a uniform that help it function as a means of control:

- (1) Uniforms are a group emblem
- (2) Uniforms reveal and conceal status
- (3) Uniforms are certificates of legitimacy
- (4) Uniform suppresses individuality

Given these characteristics of the uniform, one can see how the process of control starts with limited access to members in the uniformed organization to the uniform (Joseph, 1986). Organizational control extends to the type of uniform worn. Therefore, the first mode of control

through uniforms is that of permitting or forbidding members to exhibit their organizational affiliation through clothing. In effect, the group allocates individuals to various categories of membership and determines whether or not to make these subgroups visible (Joseph, 1986). Categories of membership and their uniforms describe the degree of acceptance accorded individuals within an organization ranging from resentful acknowledgement, to ordinary membership to elite status.

The uniform mediates in all stages of social interaction. It reflects the role of the wearer and must be changed to conform to each interaction. Therefore it is a dramaturgical device, which provides a symbolic medium for interaction, by allowing the actor to define group boundaries, and achieve organizational goals, while at the same time resolving priorities in dealing with the significant others in his, or her status set (Joseph, 1986). The uniformed wearer is a one-dimensional person, who announces only the status he or she wears on his or her sleeve (Joseph, 1986). Military organizations demand a high standard of dress and appearance from their members. In the military, the uniform plays a major role in demonstrating the power, rank, and governmental authority assigned to an individual. The appearance standards that members of the United States Air Force must meet are comprised of three components: neatness, safety, and military image. The first elements are objective and absolute requirements necessary for the efficiency, health, and well being of the Force. The last element, military image, is more subjective in nature but is equally necessary because the American people and the American government make judgments concerning military effectiveness based on the image perceived. Therefore, the major part of the perceived military image is contained in the uniform. Thus, the uniform should convey an image which will inspire public confidence and which will express the fact that military members live by common standards and are responsive to military values. However, an organization may prefer to have its personnel visible to outsiders in only certain types of uniform. For example, British Army regulations prescribe fourteen orders of dress for officers based upon climate and occasion, with subcategories for each (Joseph, 1986). Similarly, restrictions on uniforms are also evident in nonmilitary uniformed organizations, such as convents. Nuns have informally adapted habits for kitchen work by pinning up sleeves, and return to the formal use of their habits upon leaving the kitchen (Joseph, 1986).

The interaction of the uniform wearer and the viewer rests upon the clarity of the norms and the casting of the viewer in the role of the other and judge (Joseph, 1986). These norms may not always come from within the uniformed organization, and may be more defined by outsiders and then adopted by the group. The uniform in many instances influences the wearer. Since others immediately recognize no other statuses of the uniformed individual, the wearer is encouraged to act primarily as the role specified by their uniform status (Joseph, 1986).

The uniform as a controlling device originates from the existence of certain societal contexts. These contexts are particularly relevant in societies in which there are modern bureaucratic structures, thriving market economies, development of modern technologies, and a widespread division of labor, such as there are in many Western societies. In many educational contexts the uniform is still an important tool used in the socialization process in training for specific roles for youths (Joseph, 1986). In 1969 the Supreme Court decision in *Tinker vs. Des Moines Independent Community School District* was handed down. The court held that school rules and regulations should be based on legitimate school interests (Lennon, Schulz & Johnson, 1999). The *Tinker* case involved the decision of students and their parents to publicize their objections to the Vietnam War by wearing black armbands to school. The Des Moines School District learned of the plan just a couple of days before it happened and prohibited the wearing of all types of armbands to school. The court held the wearing of armbands constituted a form of speech protected by the Constitution. The decision gave students in an academic setting the right to express themselves freely, including the way they dressed and wore their hair, as long as it did not interfere with the rights of others. This, however, appears to have changed, as many schools have adopted mandatory uniform policies because the school uniform allows the student to outwardly conform to his or her role as a student in the school without having to actually internalize the norms of it. In actuality the uniform has become a means of institutional socialization and control by an organization to fulfill its functions (Joseph, 1986).

An example of a school district that has successfully mandated school uniforms is the Long Beach Unified School District (King, 1998). This was the first large urban school district in the United States to require uniforms for all students, kindergarten through grade eight. Since the adoption of mandatory uniform policies in 1994, district officials have noticed a dramatic decline in the incidences of violence and discipline problems. While other schools have followed the Long

Beach example, some have opted for mandatory dress codes behind the notion that students tend to behave the way that they are allowed to dress (King, 1998). However, Long Beach Unified and a couple of other school districts around the country remain the only districts to have adopted mandatory school uniform policies at the district level. Most school uniform policies are determined at the individual school level (King, 1998).

In the state of Virginia in 1995, a state policy went into effect that stated that school districts were allowed to require school uniforms. In that same year, Ruffner Middle School in Norfolk (Virginia) mandated school uniforms for its 977 students. There was no option out, and students who came to school without a uniform were immediately sent home with detention (King, 1998). Students coming from families that could not afford to buy the uniform were provided the uniform by the school. Ruffner has found that since the mandating of uniforms, the number of students leaving class without permission has decreased by almost 47%, the number of incidences of students throwing objects has decreased by 68%, and most importantly, the number of fights on school grounds has decreased by 38% (King, 1998). Marymount Elementary School in Richmond (Virginia), in 1994 instituted a voluntary uniform policy. Business and community leaders donated financial aid to support the program, and as a result, the percentage of students wearing uniforms rose 30% in the first year of the program and 85% in the second year (King, 1998). The school principal attributed the improved behavior, the increased attendance rates, and the higher achievements of his 262 students, to the voluntary uniform policy at his school (King, 1998).

Choitz in 1968 produced one of the first studies done on the topic of uniforms and dress codes. She studied the attitudes of girls toward the wearing of uniforms in high schools. Choitz' study of eleventh grade girls from two high schools comprised of a sample that was made up of 85 students from a school in which uniforms were worn and 72 students from a school in which uniforms were not worn. She found that those girls who wore uniforms generally agreed with the positive statements about uniforms and those who did not wear uniforms agreed with the negative statements. Students who liked uniforms came predominantly from the school in which uniforms were worn and those who did not like uniforms came from the school in which uniforms were not worn. Although 96% of the respondents from the school where uniforms were worn said they liked uniforms, only 33% of them voluntarily selected a uniform when they were given a choice, 51%

choosing a skirt or sweater and 11% a dress. Choitz believed that while girls did not mind wearing the uniform they preferred another type of school attire when given the option.

Wearers are able to identify qualities of their peers by their uniforms. They become tools with which a wearer's characteristics (unit, rank, and achievements) are recognized (Joseph, 1986).

### Students' Attitudes Towards School Uniform Adoption

The attitudes of parents and school administrators to uniforms have on the whole been positive. Most parents, teachers, and school officials feel that school uniforms make a better student. They believe that the uniforms reduce distractions and discipline problems. To many parents, uniforms are a less-expensive alternative to shopping at specialty and department stores. Parent Roni Bauder said, "Uniforms are considerably less expensive than the name-brand clothes most of our children want." (Atkins & Schlosberg, 1996). She also said that having uniforms makes mornings less stressful (Atkins & Schlosberg, 1996). Ramon Leyba, principle of the public Phoenix Preparatory Academy which has a uniform policy attributed this fact to there not being an issue of "having nothing to wear" every morning (Atkins & Schlosberg, 1996). Students don't have to worry about whether what they wear looks good or not, when they are dressed uniformly.

School administrators have also spoken in favor of uniforms suggesting that too many children base their self-image on the clothes they wear to school (Goodnough, 1997). They suggest that if students wore uniforms, their self-image would be based on academic achievement instead of on a wardrobe. The conservative white shirts, dark slacks and pleated skirts on display at retailers across the country attest to public schools' growing acceptance among parents and kids (Lee, 1995). Big national back-to-school retailers like JC Penney Co., and Wal-Mart Stores Inc. have begun selling the more classic clothing, with reportedly strong sales in a waning clothing market. A good example is evident in the sales from JC Penney's three-year old "Class Favorites" catalog of uniforms and classic clothing, which are so strong that the catalog is now available year-round, rather than just in the summer. The prospect of this growing new market had student childrens' wear designers at the Fashion Institute of Technology (FIT) creating designs of school uniforms for the future. Some student designers went beyond the traditional look of pleats and plaids, and experimented with combinations such as Ultrasuede jackets with biker shorts, fleece tops with stretch vinyl pants, bright cowboy sportswear and Dalmation-inspired coats with faux fur.

The sales in uniform-style clothing have risen largely because more public and elementary schools have voluntary uniform policies (Lee, 1995). Their aim has been to reduce peer pressure to wear expensive brand names and, in a few areas, discourage colors associated with gangs. In 1994, the Long Beach Unified School District was the first public school district to impose a mandatory school uniform policy in all of its elementary and middle schools. All of the 60,000 students in the 54 elementary and 14 middle schools affected currently wear a uniform consisting of white shirts and blue or black pants, shorts, or skirts (Donohue, 1996). Therefore, in California alone, more than 10% of the state's 1,000 school districts have introduced uniforms, and "interest is rising" from school administrators nation-wide, says Dick Van Der Laan, spokesman for the Long Beach Unified School District. But the policies alone do not explain the uniforms' popularity, because participation is usually voluntary. Indeed most public school districts cannot lawfully require uniforms, legal advisors say because of infringement upon student amendment rights. Nonetheless, participation is above 70% in places from Greenville, MS to Oakland, CA, and many of the other public schools that have started uniform policies have reported drops in violence and general improvements in students. However, among those districts that have legally instituted uniforms the Long Beach school district has also introduced other policies that would improve school conditions.

"They've got a sort of fashion to them," said Samantha Murphy, a fifth grader at Stephen C. Foster elementary School in Dallas, which started suggesting in 1995 that students wear white shirts and navy or plaid bottoms (Lee, 1995). The school found the plaid at JC Penney, but as in most schools' programs its 1,250 students can buy the clothes anywhere. Samantha knew what she liked - "I know about fashion, I've seen movies with fashion shows in them," she said (Lee, 1995). The schoolgirl look - pleated skirts, knee socks and jumpers - started appearing on the runways in the spring 1994 designer collections. Maria Hernandez, a ten year-old fourth grader at Foster Elementary, wore a white blouse and plaid jumper, which made for a neat appearance, she said. The uniform also served as a constant reminder that she's in school to learn. "I feel like a good student in my uniform," she said (Lee, 1995). Fashion experts add that the rebellious "grunge" looks of ripped jeans and baggy flannel shirts faded, uniforms looked fresh and practical.

On the other side are students who believed that all school uniforms must have an opt-out policy. They believed that there is essentially a difference between school uniforms and dress

codes. Some feel that a dress code will restrict the wearing of hats or jeans, but the students would still be allowed to choose the style of clothes they wore (Meggers, 1996). A school uniform on the other hand, will restrict the color so that all students appear alike. Many high school students are worried about having to wear school uniforms, and say that they wouldn't if they were told to. They worry about looking like everybody else, when they want to show their sense of independence. They say that all school uniforms must have an "opt-out" policy; everyone has the right to an education and can't be forced to wear a uniform to get one (Meggers, 1996).

Students opposing school uniforms state that some low-income families may not have the finances to support the purchase of a \$40 school uniform, and therefore may be forced to send their children to other schools (Meggers, 1996). More importantly though, these opponents of school uniforms feel that using school uniforms to solve the education system's problems is a "bandage solution". They argue that uniforms create a false sense of security in the community, and a more adequate approach is needed. One such approach would be that of sponsored and promoted programs and activities that would ensure the safety of students as they go to and from school such as the "safe corridor" programs. These programs would sponsor events such as open-mike assemblies where students could express themselves, and conflict resolution courses where by conflict resolution techniques would be taught (Meggers, 1996). Uniforms can be a very effective component of an overall approach to curb negative behavior in the schools.

However, the question still remains whether students actually behave better and take school more seriously when they exchange their unofficial uniforms of baggy pants, T-shirts, baseball caps and name-brand sneakers for a school-sanctioned outfit of white dress shirt, ties, and dark pants or skirts. Many teachers who have seen this change of clothing believe behavior and performance have responded positively (Gursky, 1996). There have been many positive effects of school uniforms, one being that less attention is given to what other children are wearing when uniforms are in place, so fewer kids are hassled about what they wear to school. Students are not judged by their peers according to how they are dressed when everyone wears the same thing. These dress codes make provision for school clothes that are less expensive to buy than the name brand clothing that many children would like to wear to school. School uniforms have also been shown to prevent gang members from wearing gang colors and insignias to school, while at the same time helping school officials to recognize intruders onto school grounds. To date, the biggest



positive effect of having uniforms in schools has not been in a more evidently disciplined student population, but in the rise in school morale among the student population.

### Wearer Preference Measures

Wearer preference is one of the processes through which design criteria are determined and evaluated as the best choices for any particular individual or group, in reference to clothing. The wearer preference measure actually consists of an instrument that is used to measure the preferences of a wearer for a certain aspect of an item of clothing. The wearer's preferences eventually become part of the basis for the researcher's design criteria.

Charlene Lind in 1993 conducted two studies on the psychology of color that focused on the similarities between color preferences as an abstract concept and color preferences for clothing, using a sample of 259 individuals made up of university students and non-university subjects. In rooms illuminated by artificial lighting, subjects were given 10 color samples and asked to rank them in the order of personal preference for color. Once the color samples were ranked and preferences recorded, subjects were then asked to use the same color samples to rank in order of personal preference for the color of an item of clothing. With this done, the subject's demographic data was taken, followed by the identification of the color of a favorite garment and the determination of the dominant colors in the subject's wardrobe. Obtaining the dominant colors in the subject's wardrobe was determined by the colors of the clothing worn by the individual at the time of data collection. This determination was done visually without the use of the Munsell color system.

Results indicated that there are probably many factors that contribute to color preferences. The eye's sensitivity to light may be a contributing factor; it may be that the average individual's eye is comfortable with blue-red light, but too sensitive for light coming from green-yellow origin. This finding is consistent with previous results from previous studies. Some of the preference differences between the two groups studied can be attributed to the age of one sample over the other as well as fashion trends. The color preferences for clothing were not always in the brightest of hues. Often the darker and duller forms offered practicality and versatility. Even though the data were collected in the spring, when participants indicated they often wore brighter colored clothing, they still identified the desirability of dark/dull colors for clothing use. While fashion

trends may alter the acceptability of colors to a degree, consumers appear to be willing to use bright forms of the more favored colors and of cool colors regardless of current fashion. The less favored colors were always more acceptable in darker or duller forms when used for clothing.

Another study that utilized a wearer preference measure for data collection was one conducted by Feather, Ford and Herr in 1996. Five hundred and three female collegiate basketball players were pooled to study their body cathexis, body forms, garment fit satisfaction, uniform design preferences and general demographic characteristics. The purpose of this study was to determine players' contentment with their bodies and current uniforms; their satisfaction with present uniform fit compared to garments they normally wore; and players' preferences for basketball uniforms. Many basketball players tended to be tall and black. Black and white consumers showed different garment preferences. Clothing was often seen as a physical extension of the self and as an integral part of the body image. The team's uniform is one of the first physical characteristics seen when a crowd watches the game. For female basketball players, uniforms were important because they provide physical and psychological comfort for players to perform at their optimum.

The wearer preference consisted of six sections; a body cathexis scale, a body form schematic, garment fit satisfaction evaluation, options for design preferences of basketball uniform components, demographic information and an opportunity to comment on current uniforms. The questionnaire was self-administered. For the sake of relevancy, the only section of this questionnaire that was examined was that with the options for design preferences of basketball uniform components. This section consisted of uniform design features taken from manufacturers' catalog illustrations and common designs of basketball uniforms. These were sketched using flat line drawings. Uniform design features were divided into two categories: uniform jersey and uniform shorts. Each piece of the uniform was then divided into four design components: jersey (neckline, armhole, length and hemline) and the shorts (style, vents, waistband width and waistband style). Each design feature had five options. Subjects were asked to select the design features they preferred for their jerseys and shorts, and to comment about their uniform preferences.

Results showed that players preferred the design features present in uniforms that currently are worn by university women's basketball teams. Many of the design features were borrowed from men's basketball uniforms. The player's first preference for a jersey was a deep v-neckline, sleeveless, hip length and a straight bottom with vents. The sleeveless allows for greater arm movement than do raglan or cap sleeve designs. The short style preferred was a baggy style, v-vents, either a 1 ½ or 2 inch waistband with elastic drawstring. Shorts were evidently of the greatest concern among the players. Players favored the baggy shorts because they provided ease of movement, hid large thighs and camouflaged the diversity among players' sizes.

Tan, Crown and Capjack (1998) designed and evaluated garment systems for optimum thermal protection for Canadian Force's flight personnel to determine the effect of selected garment parameters (style, fit, closure system and seam type) on thermal protection. The use of thermal protection in clothing has been reported to cause discomfort; lack of fit and mobility, and sometimes the lack of proper functional protective clothing has been attributed to their lack of acceptance by users (Tan et al. 1998).

The design process began with the observation of both videotapes and photographs of previous mannequin testing of thermal protective clothing, after which group interviews and videotaped movement analyses were conducted to better understand the structural problem. Based on the results of the first part of the design process, design specifications were developed for the five criteria: safety or thermal protection, functional requirements such as comfort, fit/mobility, psychological requirements, production and maintenance. An interaction matrix of design specifications was then established for the purpose of illustrating specifications that were in direct conflict with each other, specifications that required accommodation to be met in the same garment, and specifications that weren't in conflict with each other. The prototype developed for the one-piece flight suit was a modification of the current one, a good illustration of which would be the lowering of the armholes on both the front and back bodice pieces of the flight suit. Likewise, the prototype developed for the two-piece flight suit was a modification of the available one. In total eight different flight suits were constructed into muslin and fitted on a mannequin that was used to evaluate and compare the garments. These eight prototypes incorporated the design elements and specifications needed to meet the pilots' needs.

Vass in 1989 conducted a study of needs assessment in the form of wearer preference. The purpose of her research was to develop an instrument to help determine the wearer preferences of the female violinist in a concert performance setting. This study assessed the needs of a specific wearer (female violinist) during an activity (violin playing in a concert performance). The participants of this study were female violinists in orchestras located in the District of Columbia, Maryland, Pennsylvania and Virginia. The results of the study showed that the type of upper body garment preferred by the participants of this study was a long (hip length), full sleeved garment.

In the same manner, Alexander in 1998 conducted a study to determine the preferences of female flight attendants for uniform clothing and garment characteristics of the ideal flight attendant uniform. The ultimate goal of this research was to identify the ideal flight attendant uniform by combining design criteria to enhance the wearer in the activity and environment in which the clothing was worn. Once the researcher had taken the step to observe the problems flight attendants had with their current uniforms from a visual perspective, personal interviews were conducted with the actual flight attendants while they were in their working environment, and a wearer preference measure was developed based on the information gathered. The instrument once developed was administered to a sample of 218 female flight attendants. Data collection was conducted in the crew lounge of major southeast airline. Results from the study indicated that the types of garments preferred for uniform clothing by the female flight attendants were a shirt, a cardigan sweater and a pair of slacks.

A review of the literature on wearer preference measures focused on determining design criteria for clothing. Researchers utilized wearer preferences to determine design features of clothing to satisfy the wearer's psychological and physiological needs. Researchers usually went through a design process that began with observations and ended with design criteria used to develop a prototype. The main objective of these studies was to identify garment characteristics that enhanced the wearer in the activity and environment in which the clothing was worn.

### Summary

A review of the related literature indicated that physical appearance was an important variable in the perceiver's judgment of individual character and abilities (Behling, 1994). A halo-effect appeared to be in effect when an attractive person was perceived as more sociable, as well as,

more accomplished at performing a task than an attractive person. (Behling, 1994). Values underlie this cognitive process. This is because when values are applied externally, they guide the formation of countless favorable and unfavorable attitudes towards external persons or objects encountered (Ball-Rokeach et al. 1984).

Clothing is probably one of the most tangible expressions of an individual's values system and a critical component of person perception. Clothing may represent only a part of an individual's value system, but it gives cues as to the values a person holds. Clothing behavior patterns often reflect a person's acceptance or rejection of his or her social environment. For the adolescent, wearing certain types of clothing, especially brand-name clothing is a form of behavior that shows the acceptance of his or her social environment, by "fitting in" with the appearance standards or norms of his or her peer group. Among adolescents, research has shown that perceived clothing deprivation is a barrier to social participation. These results are consistent with the noticeable surge in competitiveness among American adolescents for the latest and most expensive brands of clothing (Bellezzo, 1991; Sanchez, 1991; Stern, 1990). Many adolescents in their efforts to deal with the pressure to conform to the set appearance standards in order to become accepted by their peer group, have resorted to selling drugs, shoplifting, and school ground violence in order to attain the latest fashions (Richardson, 1991; Sanchez, 1991). This type of situation not only endangers the child's life but also makes the school grounds a dangerous environment. School officials responded with numerous reform efforts, one of which included implementing school uniform policies.

The uniform mediates in all stages of social interaction. It reflects the role of the wearer. Uniforms play a major role in the military. Military organizations demand a high standard of dress and appearance from their members, and the uniforms reflect those standards. The appearance standards of most military organizations are usually made up of three components: (1) neatness, (2) safety, and (3) military image. The first elements are necessary for the efficiency, health and well-being of the group, while the third element is concerned with military effectiveness based on the image perceived from the public. Therefore, the major part of the perceived military image is contained in the uniform. Thus the uniform conveys an image that inspires public confidence and which expresses the fact that members of the military live by common standards and are responsive to military values.

In many educational contexts, the school uniform allows the student to outwardly conform to his or her role as a student in the school without internalizing its norms. In actuality, the school uniform becomes a means of institutional socialization and control by an organization to fulfill its functions (Joseph, 1986).

Most school uniform policies are determined at the individual school level (King, 1998). Most parents, teachers and school officials feel that school uniforms make a better student, and many students are in agreement. However, there are students who feel that there is a clear distinction between school uniforms and dress codes. They argue that while dress codes may restrict the wearing of hats or jeans; they still allow students to choose the style of clothes they wear (Meggers, 1996). Uniforms are restrictive, and create student “look-alikes”. These students believe that all school uniforms must have an “opt-out” policy.

A partial process through which design criteria may be determined and evaluated for any particular individual or group, in reference to clothing is called wearer preference. The wearer preference measure actually consists of a questionnaire that is used to measure the preferences of a wearer for a certain item of clothing. The wearer’s preferences eventually become part of the basis for the researcher’s design criteria.

The literature review revealed that clothing is a symbol used in the process of social interaction to assess an individual’s values, behavior and abilities. In order to reflect to the public the appearance standards and values maintained by an organization, its members commonly wear uniforms. Along the same lines, school uniforms policies have been implemented by many school systems in order to have students reflect an acceptable appearance and certain social values. However, a wearer preference measure has not been utilized to determine the components of a uniform , nor have individual’s who have worn uniforms ever been employed to determine the design criteria for a school uniform policy.

## CHAPTER 3

### Statement of Problem

The purpose of this study was to identify preferences related to school uniform design and to examine gender differences in personal value selection. This chapter presents the statement of the problem, the cognitive base, the contextual framework, operational definitions, objectives, hypotheses and assumptions.

#### Problem

One of the most disturbing problems in public schools today is youth appearance related to delinquent behavior. Clothing has become extremely important to children, in their efforts to compete as well as to successfully fit in with their peers. Some adolescents sell drugs, shop lift and resort to violence in order to obtain the latest fashions (Richardson, 1991; Sanchez, 1991). Children whose families cannot afford the most expensive brand of the latest fashions are not able to compete, and often resort to violence on and off school grounds to attain these status symbols. These types of situations not only endanger school children but also make the school grounds a dangerous place.

School professionals blame these problems on the pressure to fit in, and many studies on appearance perception document that wearing certain types of clothing, especially brand name clothing, to be a viable form of “fitting in“ for the adolescent. Studies focused on appearance communication have concluded that clothing is a critical component of person perception, and is probably one of the most tangible expressions of an individual’s value system. This is important because, values organize our perceptions to pinpoint appearances that we find attractive, clothes that we see as meaningful, and ideas that we associate with certain appearances (Kaiser, 1997). These values eventually become our personal traits and behaviors, thus enabling us to understand and compare ourselves with others. Therefore, it is not surprising that the clothes adolescents wear may lead their peers to assume certain facts about their personal attitudes and values (Bickman, 1974). Self-esteem, personal values, and interest in and awareness of clothing also help to set the stage for appearance management and perception (Kaiser, 1997).

So, emulating other important social organizations that have had uniforms, such as the military, many public school systems have instituted mandatory school uniform policies to deal with this underlying pressure on students. These policies have been adopted because the school uniform allows the student to outwardly conform to his or her role as a student without having to actually internalize the norms of it. So the school uniform actually becomes a means of institutional socialization and control by the school to fulfill its functions (Joseph, 1986).

This study determined the uniform preferences of uniform-wearing students and examined core terminal values that these students perceived were communicated nonverbally by students in school uniforms. This research also determined whether there were significant differences between the values males and females ascribed to uniformed students.

### Purpose

While most uniform programs, especially at the middle school level were developed as a need to minimize gang influences, there are benefits that would serve the interests of all middle school students. Two of those more generalized outcomes are the control of behavior and the reduction of distractions due to clothing differences among students. Schools may emulate a number of important societal organizations that have had uniforms for many years, such as the military. Military organizations demand a high standard of dress and appearance from their members. In this context, the uniform plays a major role in demonstrating power, rank and governmental authority assigned to the individual. The uniform must convey an image that inspires public confidence and expresses the fact that those members live by common standards and are responsive to military values. However, despite the history behind military uniforms, no research has been conducted on school uniform preferences using participants with military uniform experience. The participants of this study attended a military institute within a major land-grant university and wore uniforms on a daily basis. These participants may be considered professional uniform wearers.

The reasoning behind using this type of participant in a study on school uniforms lies in the military concept that the group is of greater importance than the individual. This concept is supported by the first function of a uniform, which Joseph and Alex (1972) hypothesized. Joseph and Alex (1972) hypothesized that a uniform is as a group emblem and, therefore, a symbol of all



the group's values. The uniform and the group are considered a unit, in which the uniform is the main target of thought rather than the group itself. These participants were important to this study because of their personal experience wearing school uniforms.

The answers to the question of how to develop a successful uniform policy revolve around the parents. Without the support of parents, any efforts to implement such policies maybe ill fated. This study then is the first part of a larger study that will focus on parents, teachers and students to develop an interactive or participatory uniform design system for schools that want to adopt uniforms.

Although there has also been very little research on the expression of values through appearance, there is evidence that some types of values or goals are displayed through appearance and dress. This research examined terminal values that these participants attributed to uniformed students and determined whether gender was a contributing factor in these value selections. This research described the uniform design preferences of uniform-wearing students, which ultimately became the limited design criteria for middle school uniforms in this study.

### Cognitive Base

Many judgments of appearance are evaluative, meaning that value judgments are used in assessing appearance (Kaiser, 1997). According to Kaiser (1997), values are self-organizing principles that guide our thoughts and actions. Culture provides many values for us that we are socialized to accept; yet values are very individual and usually linked to self-concept and self-evaluation. Values are probably the most abstract form of social cognition. Social cognition is the study of how people understand and reason about their social lives (England & Petro, 1998). From these abstract social cognitions we manufacture attitudes and behaviors. This study focused on specific social psychological processes related to both appearance perception and social cognition.

Values underlie appearance communication, and are linked to both appearance management and perception because they not only influence what we see but *how* we see (Kaiser, 1997). The statements that arise from values (value statements) have two important characteristics that are directly linked to appearance communication. First, value statements are meaningful: they provide the means for the expression of one's own preferences and evaluation. Second, value statements

are contextual. Context and perspective are combined in statements that express individual values. The meaningful and contextual dimensions of values directly influence aesthetic judgments; thereby shaping what we think is interesting and worthwhile to behold, and even to wear.

Adolescence, as the transitional period between childhood and adulthood, usually is characterized as the time of identity formation. Erickson (1968) described this transition as extremely personal, and only happening in a social context. The peer group provides an important social context in adolescence, and researchers have demonstrated that peers play an important role in the development of an adolescent's identity. During adolescence, physical attractiveness assumes a new kind of importance in the lives of both males and females, as peers become increasingly influential in feelings of self. Physical appearance and clothing alike become magnified in importance because the adolescent has not yet fully outgrown the orientation to concentration on peripheral, rather than concrete qualities in a person. The teen still retains some of the egotism of childhood but becomes increasingly aware of the self in relation to others, and experiences concern about "appropriate" appearance and behavior in the self, and feels that everyone else notices his or her appearance and behavior to the same degree (Kaiser, 1997).

Many studies have shown that appearance, academics, social status, athleticism, peer acceptance and attractiveness to the opposite sex play an important role in the interpersonal interactions among adolescents (England & Petro, 1998). In the process of self-appraisal and appraisal of peers, adolescents may be more or less accepting of differences in physical characteristics, of particular clothing styles, or of achievement in the classroom (England & Petro, 1998). The differing emphases which adolescents place on various aspects of social concerns create diversity within the group. That diversity makes social comparisons possible. One result of the comparisons is that adolescents who express themselves in a similar way may spend a lot of time together thus forming a social group based upon common interests and styles (England & Petro, 1998). As a group is formed, group norms are established based on the ways members express themselves, and in turn, the norms reinforce the personal style of group members (England & Petro, 1998).

England and Petro (1998) investigated adolescent peer groups from the social cognitive perspective. The first of these two studies is discussed here. The purpose of the first study was to

conduct a content analysis of descriptors used by adolescents to describe their peer groups in order to determine if the characteristics were related to adolescent social concerns that were described by previous studies. Their argument was that because adolescent identity is in part formed through social interactions with peers and because those interactions are important to adolescents, the peer group characteristics would be related to adolescent social concerns. These descriptors were categorized into: (1) appearance; (2) academics; (3) athleticism; (4) sociability; (5) status; (6) gender norms; and (7) attractiveness to the opposite sex. The 92 seventh grade participants were asked to name their peer groups and provide descriptive characteristics they perceived to be associated with each group. Participants provided 391 attributes, which were then evaluated as to whether they consisted of a characteristic related to adolescents and also as to whether they were redundant. This process produced 44 distinct descriptors. Of these 44 descriptors, it was found that 90% of them were easily classified as related to one or more of the concerns that have been described in the literature on peer interactions. The second purpose of this study was to describe labels given to peer groups and to describe the characteristics associated with those labels. Although instructions to the participants did not mention peer groups, participants labeled their types with the labels typically referred to in literature on adolescent peers (goody-goodies, nerds, populars, jocks, snobs, headbangers, wiggers, druggies). The use of divergent labels indicates that adolescents draw from a pool of labels as they organize personal information about peers.

When adolescents learn to categorize their peers, they are learning to use processes that are basic to many social interactions. Social categories contribute to the efficacy with which information about people can be processed cognitively. By using category information as a base, people may more easily go on to process the individual information that makes other people unique (England & Petro, 1998). There is concern about peer groups as leading to stereotyping and as perpetuating social classes, but the formation of peer groups may not be maladaptive because the processing involved is part of normal cognitive functioning. The formation of peer groups might be related to adolescent cognitive development. Some scientific studies have shown that peer groups actually represent social categories rather than real peer groups. If counselors and teachers understand that the adolescent peer groups are not simply an expression of adolescent personal friendships, then they might be able to assist adolescents more successfully.

This study was developed within the context of the social cognitive perspective. In the case of this study, the social cognitive perspective focuses primarily on appearance perception, and more specifically, the individual thought processes that are used to retrieve information about individuals and groups of individuals, particularly in relation to personal values. The process through which observations and evaluations are made based on how people look is called appearance perception (Kaiser, 1997). This process of evaluation occurs daily and is relied upon in much the same way as social cognition, in that; it is used to make sense of everyday life. Because the way we perceive clothing in real life is rarely disconnected from appearance perception in general, this term will be used to encompass clothing perception in this research. In situations where we perceive clothing differently from a more general appearance, we are still likely to deal in an implicit way with a kind of "imaginative" appearance perception, that is; how the clothes would look and what they would represent in the broader context of appearance on another person's bodies, including what could be worn with them (Kaiser, 1997).

This research study was based on the assumption that clothing and appearance are symbols often used to simplify social interactions. This assumption is based upon the idea that reality is too complex to be understood as a whole, and humans must have resources to fall back on that will allow them to process information about people or items based on appearance cues (Kaiser, 1997).

Visual symbols are often used to help establish the identity or status of a person. Clothing may be that visual symbol. This type of identity is called status for the social structure in a given situation and it defines the individual's rights and obligations with regard to others with statuses in the same structure (Winfrey, 1977). When a person enters a social situation he or she starts out with an already established identity (Winfrey, 1977). Members of the armed forces can tell at a glance the status of any other member by the uniform and badges worn by the individual (Winfrey, 1977). In this instance, even if group members meet as complete strangers, their relationships are regulated in advance by a military code. They immediately recognize respective statuses and know how to behave appropriately (Winfrey, 1977). A uniform wearer is a one-dimensional individual because his or her status is announced through his or her clothing. There is no ambiguity about the individual because his or her group membership is easily recognizable.

A role is simply the dynamic aspect of a status. A person is performing a role when he or she transforms the inherent rights and obligations of a status into behaviors (Winfrey, 1977). A role is how one actually behaves in a given status, not necessarily how he or she is supposed to behave. Roles serve not only to control behavior, but also to help people in predicting the behavior of others so they can adjust their own actions appropriately. Social role relationships are generally defined by instrumental values, such as courtesy, respect, and obedience. Research on student clothing behavior has shown that clothing behavior helps the student play a role. Students with acceptable clothing behavior have been reported to be more likely to have a higher grade point average and to participate in extracurricular activities (Hamilton & Warden, 1966), than those with unacceptable clothing behavior.

Status and roles are interrelated; one does not exist without the other. All statuses and roles are derived from social patterns. Status and role reduce ideal patterns of social interactions to an individual level so that people can organize their own attitudes and behavior in reference to those of others in the social pattern. The more attuned members of society are to their statuses and roles, the more smoothly the society can function. Clothing can help people in identifying statuses and in learning and carrying out specific roles.

The participants of this study are part of a social organization that demands a high standard of dress and appearance from its members. This is because the dress and appearance of members of military organizations play a critical role in communicating power, rank and governmental authority assigned to individuals. Their uniforms must convey an image that inspires public confidence and which expresses the fact that they live by common standards and values.

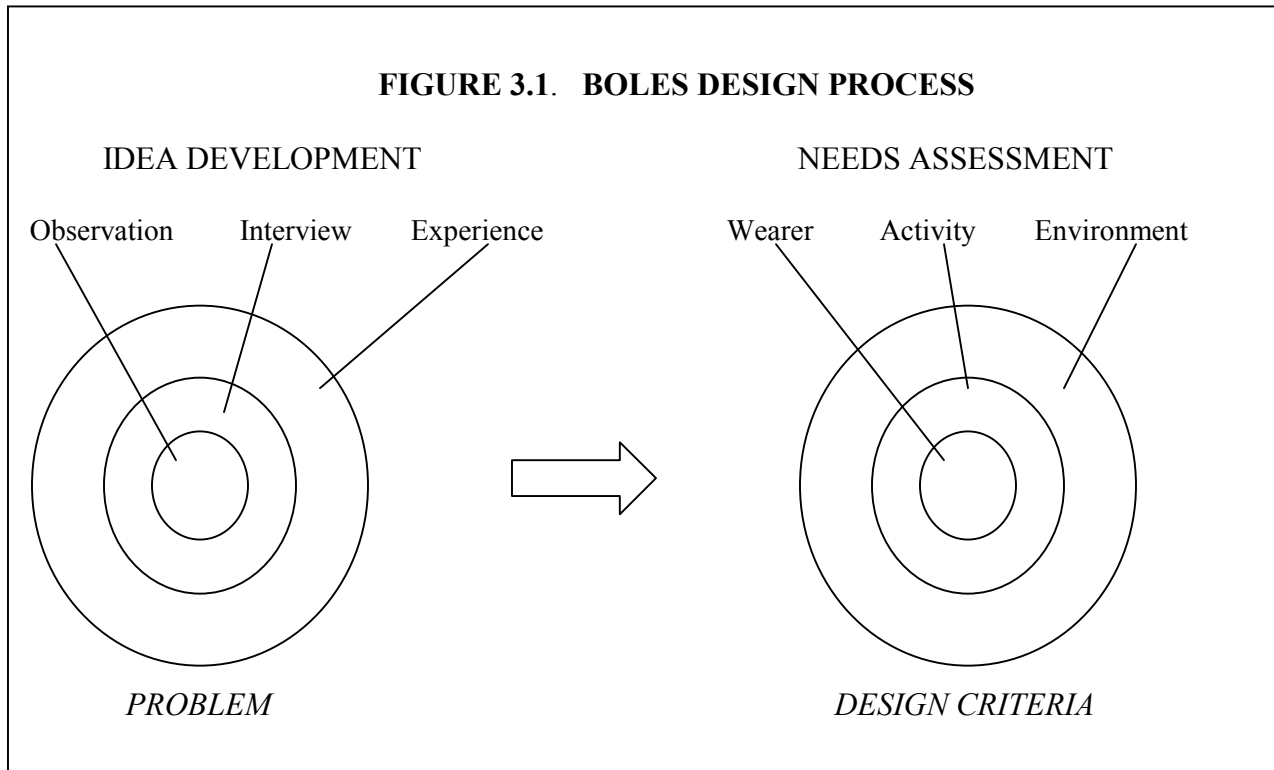
### Contextual Framework

The developmental framework used to build this study was a design process by Boles. This design process was developed specifically for creating a product for the portable environment. This framework consists of:

- (1) Idea development by observation, interview, and experience of the researcher to determine the problem
- (2) Needs assessment on the effect of the activity and environment on the wearer/user to determine the design criteria

- (3) Prototype development comprised of the form, materials and assembly resulting in models
- (4) Evaluation in the field and/or laboratory based on the criteria used to develop the prototype resulting in choice

This study utilized two of the four steps in the Boles design framework; these were idea development and needs assessment.



The first step taken was that of idea development through which the research problem was identified. At first journals, newspapers and popular magazines were read and television watched, and many conversations were had in order to identify the current affairs and trends in society today. Quite a few trends were identified in the course of this exercise, but it was the theme of education, delinquency and school uniform policies that kept recurring from the environmental scanning. The next step was to send out a questionnaire to all public elementary, middle and high school district superintendents in the state of Virginia, to determine the level of interest in the topic of school uniforms. This step was necessary because the teachers, administrators, students and parents of students in the school districts were the best indicator of whether there was any interest in school

uniform policies for Virginia public schools. Once the questionnaires were returned indicating interest in school uniforms in public schools, it was determined that there was a sufficient amount of interest on the topic of school uniforms in the public schools to warrant further study. It was determined that the research would be conducted to ultimately develop an interactive or participatory uniform design system for schools considering uniform adoption.

The second step taken in this design framework involved identifying and studying the wearer and the activity and environment for the study: a needs assessment. Public school students were the ones most affected in the public school environment and they would be the primary users of the school uniform. So they were identified as the wearers in this study. It was determined that the method in which the wearer's problem could be studied was through a wearer preference measure. This was done with a questionnaire that assessed design preferences for school uniforms and determined student needs and resultant preferences materialized as uniforms. This study was part of a larger project focused on developing an interactive system of choosing uniform design.

However, the questionnaire needed testing to ensure that it would measure the school uniform design preferences of students before it was actually administered or became an integral part of the interactive uniform design system, which the larger study sought to develop. So, a sample of "professional" uniform wearers was recruited as participants for this study. These participants were students, and were selected because they had school uniform wearing experience. Their significance to this study revolved around their ability to generate uniform design criteria based on their experiences with school uniforms.

Below is a list of definitions that describe the concepts that are of importance to this study as a whole.

### Operational Definitions

(1) *Appearance* – "A visual context that includes clothing as well as the body" (Kaiser, 1997).

(2) *Appearance communication* – "The meaningful exchange of information through visual personal cues" (Kaiser, 1997).

(3) *Appearance management* – "A mechanism that allows for the expression and anchoring of a sense of change and movement in time, on a daily basis" (Kaiser, 1997).

- (4) *Appearance perception* – “The process of observing and making evaluations based on how people look” (Kaiser, 1997).
- (5) *Cognitive perspective* – “This perspective focuses on individual thought processes, and views clothing and appearance as clues to what a person is like” (Kaiser, 1997).
- (6) *Individual values* - Socially shared "conceptions of the desirable", conceptions that are learned resultants of external and internal forces acting upon a person (Rokeach, 1973).
- (7) *Khaki* – A sand-colored light twill fabric or a casual style of pants, shorts, skirts or skorts.
- (8) *Self-concept* – An overall sense of who one is (Kaiser, 1997).
- (9) *Social cognition* - The theory that seeks to explain how persons gather information received from stimuli in order to make decisions regarding the stimuli.
- (10) *Socialization* – “The process through which individuals become socially adjusted to standards and values of the society as a whole” (Kaiser, 1997).
- (11) *Terminal values* - “The desired end states or goals of human existence” (Rokeach, 1979).
- (12) *Uniform* – Dress of a specific style or fashion worn by all persons in the same organization.
- (13) *Value statements* – “These are statements that arise from values” (Kaiser, 1997).

### Research Objectives

The objectives of the study were:

- (1) To determine the five values that male and female students chose to ascribe to students in school uniforms.
- (2) To determine male and female student school uniform design preferences.
- (3) To develop design criteria for uniform design based on the preferences of male and female students.

### Testable Hypothesis

The following hypothesis is stated in the null ( $H_0$ ):

H1: The probability that a female participant chose  $x$  terminal value is the same as the probability that a male participant chose this same terminal value.



### Assumptions

The assumptions of this study were:

- If participants are instructed to ascribe specific values to uniformed students based on their system of values, they will have a valid foundation on which to make their decisions.
- A respondent's answer to the questionnaire used is an accurate assessment of the individual's preferences of uniform design.

### Limitations

This research involved the following limitations:

- (1) A convenience sample.
- (2) A cadet corps organization from one region of the country, the Southeast.
- (3) Corps of cadets members were ages 18 to 22 years.

## CHAPTER 4

### Methodology

The research methodology used in this study is discussed in this chapter in the following order: (1) sample selection, (2) variables, (3) development of the questionnaire, (4) the pilot test, (5) data collection, (6) analyses of the data, and (7) hypothesis testing.

#### Sample Selection

While most uniform programs, especially at the middle school level were developed out of a need to minimize gang influences, there are benefits to school uniforms which would serve the interests of all middle school students. Uniforms can eliminate some of the peer pressure and developmental issues that adolescents must deal with during the crucial middle school years. Schools can emulate a number of important societal organizations that have had uniforms for many years, such as the military. Military organizations demand a high standard of dress and appearance from their members. In this context, the uniform plays a major role in communicating values. The uniform must convey an image that inspires public confidence and which will express the fact those members live by common standards and are responsive to common values. However, despite the history behind military uniforms, no research has been conducted on school uniform preferences using participants with military uniform experience. The participants of this study attended a military institute and wore uniforms on a daily basis. These participants were considered as professional uniform wearers.

The reasoning behind using this type of participants in a study on school uniforms lies in the military concept that the group is of greater importance than the individual. This concept is supported by the first function of a uniform, which Joseph and Alex (1972) hypothesize as a group emblem and therefore a symbol of all the group's values. The uniform and the group are considered as a unit, in which the uniform is the main target of thought rather than the group itself. These participants were important to this study because of their personal experience wearing school uniforms.

The answers to the question of how to develop a successful uniform policy revolved around the parents. Without the support of parents, any efforts to implement such policies may be ill fated

because the Boards of Education in Roanoke, Virginia area would not approve the policies without full parental support. That is why this study is the first part of a larger study that focused upon parents, teachers and students to develop an interactive or participatory uniform design system for schools that wanted to select uniforms for adoption.

The population for this study consisted of males and females between 18 and 24 years of age who attended a military institute of higher education, in which they were required to wear uniforms on a daily basis. A convenience sample of students from a cadet corps organization at a large mid-Atlantic university was selected from the population. The criteria used to select this organization's cadets for participation in the study were its proximity to the researcher, and a corps of cadets with student representation from a variety of ages, races and both genders so that information obtained would represent the diversity of the population.

The study aimed to obtain a sample of 60 male and 60 female cadets from this university; consequently cadets of freshman, sophomore and junior standing were invited to join in the study by a senior ranking officer in the corps. All participating cadets were required to read and complete a consent form before answering the questionnaire. The participants were rewarded with merit points used to eliminate accumulated demerits.

### Variables

The independent variable used in this study was gender, while the dependent variables were: (1) personal values, and (2) school uniform design preferences. Demographics such as age, race, and participation in extra-curricular activities were collected to gain background knowledge of the respondents in this study.

### Questionnaire Development

The objectives of this study were realized through the use of a self-completion survey. Surveys deal with phenomenon as they exist; they do not attempt to alter anything experimentally nor do they involve random assignment of subjects or conditions (Touliatos & Compton, 1992). A descriptive survey approach was suitable because this particular study sought to arrive at comprehensive quantitative descriptions of the characteristics of a defined sample of a population.

In addition, the variables identified for the study were suited to a survey that could be administered by the researcher.

The instruments used in this study were developed from the research problem and objectives of the study. The basis of these questionnaires lies in the preference measures that were developed in the studies by Alexander (1998), Vass (1989) and Boles (1984). Vass (1989) in her study of female concert violinists focused on the upper body garment of wearers in a concert performance setting. The instrument for the perceived needs assessment was based on the preference measure used in Boles' 1984 study on men's indoor exercise wear. Boles' 1984 wearer preference measure was presented in a multiple-choice format, using verbal and visual cues. The participants for her study indicated their preferences for closeness of fit, and style variations by marking their choices to each question. Boles concluded her survey with a series of open-ended questions regarding garments worn for the activity being investigated, and some demographic information. Components of Boles' study, such as the use of line drawings, question format and method of statistical analysis are what Vass took and used to develop her female violinist questionnaire. Vass also used additional questions to solicit even more information from her participants. Similarly, Alexander in her 1998 study of the uniform preferences of female flight attendants used the questions related to closeness of fit from the Boles' wearer preference measure, to develop an upper and lower body garment for her sample.

In order to secure a response from male and female students concerning items of clothing that they would prefer middle school children to wear to school given unrestricted choices, the following procedure was used. Many items of clothing typically worn by early adolescents to school were studied, and then the researcher grouped the clothing items into four major categories. Each clothing category addressed the covering of a specific body area like the upper and lower torso. Questions were then developed to address preference choices for each garment in terms of structure, materials, assembly, color, texture, fabric weight, and overall style. Below is an example of a question that was developed to address preferences for the texture of a garment is:

*Example:* Please select the choice(s) that best describes your fabric preferences for a male student's uniform jacket or coat. You may choose more than one.

(1) smooth/silky, (2) soft, (3) quilted , (4) waterproof, (5) stiff/crisp, and (6) rough/fuzzy

The questions were then modified into two versions, to accommodate the sex-specific differences found in male and female clothing. The differences in clothing items worn by boys and girls forced the elimination of certain clothing choices from the male version of the questionnaire and added them to the questionnaire for female students. Once the clarity of the questions were pre-tested and revised on three male and three female college students, black and white illustrations of each garment in question were drawn and inserted into the questionnaires. The illustrations were gender-specific; consequently each instrument received a set of illustrations. However, due to the current unisex styling of adolescent clothing, many of the illustrations were similar.

Rokeach's Value Survey was used to identify the terminal values that uniformed students communicated visually. The 18 terminal values on the original survey are: wisdom, independence, self respect/self esteem, a sense of accomplishment, peace of mind, equality, beauty, inner harmony, family security, social recognition/admiration, happiness, active life, comfortable life, true friendship, real love, national security, pleasure/leisurely life, and salvation/eternal life. Fifteen of the 18 terminal values from Rokeach's Value Survey that were directly related to the student and the role he or she plays in school were selected and integrated into this survey. The value portion of the instrument composed of Rokeach's Value Survey was a measuring instrument developed by Milton Rokeach, which identifies major end states of human existence and the behavioral modes for achieving them. The Value Survey consists of an alphabetical list of 18 terminal values and another alphabetical list of 18 instrumental values. Defining phrases typically accompany these values. Respondents are usually instructed to arrange the list of values in order of their importance to them, as guiding principles in their lives. Although the Value Survey is extremely simple and highly abstract in nature, extensive research with it in different societies has consistently shown that it is both a reliable and valid measuring instrument.

The instrument in this study is comprised of three major parts:

- (1) Demographics
- (2) Personal value statements
- (3) Uniform design preferences

The first section consisted of questions that obtained descriptive demographic information from participants. The demographic questions pertained to the respondent's age, race, and participation in extra-curricular activities –such as in-school athletic and academic clubs. In section two

(personal value statements) respondents were asked to select five of a total fifteen values that they attributed to students in school uniform based upon their existing knowledge.

In the third section of the questionnaire (uniform design criteria), students indicated the elements of uniform design that they preferred. They were helped through this process by a series of sketches that illustrated choices of possible uniform design criteria. Questions on the preference measure were developed to determine how much of the body would be covered, how closely, and with what. Garment types were maintained in basic terms such as pants and shirts. This was done to avoid bias and *naiveté* relative to terminology. These questions were in the multiple-choice format. Open-ended questions were included in each major division of the preference measure.

### Pilot Test

After the initial development of the questionnaires they were pre-tested on three different groups of students: (1) one male and four female seventh graders attending middle schools in one of the Southwest Virginia school districts, (2) one male and two female fifth graders attending elementary schools in a Southwest Virginia school district, and (3) two male and two female college students attending college in the Southwest Virginia region. The questionnaire was pre-tested to establish: (1) clarity and readability of instructions and questions, (b) modifications needed in format and illustrations, and (c) time necessary for completion of the survey. Each group of respondents provided suggestions regarding the clarity of questions, time of completion and modification of illustrations. The amount of time needed to complete the survey was 35-40 minutes.

Based on the suggestions made during the pilot test, the researcher re-worded some of the personal value statements to clarify them, and modified some illustrations making them more gender-appropriate. In addition to this, some additional questions were added to expand design criteria. The instrument that was finally administered to male participants consisted of a total 88 questions, 84 of which were forced choice and four of which were open-ended. The preference measure that was distributed to female subjects consisted of a total of 119 questions, 113 of which were forced choice and six of which were open-ended. This tally of questions excludes the responses from the Rokeach Value Survey (RVS), which was genderless and asked subjects to select the five values that they attributed to students in school uniforms.

### Data Collection

The questionnaires were administered once the researcher received written approval to conduct research from the Institutional Review Board for Research Involving Human Subjects at Virginia Tech. This approval ensured the ethical conduct of the research and that the human subjects involved in the research were exposed to the least possible risk. The researcher then received oral permission to use student cadets in this study from the Commandant of the corps of cadets organization. A student officer was assigned to help in the administration of questionnaires. Each participating cadet signed the Informed Consent form (see Appendix A) before completing the questionnaire. No incentives were given to the respondents by the researcher. The corps organization awarded participants with merit points used to eliminate accumulated demerits.

Data were collected during the month of November 1999. A convenience sample of male and female cadets was used. An appointed student officer distributed 120 questionnaires to student cadets under his command. Upon completion of the questionnaire, respondents returned their questionnaires directly to the student officer. Within a two-week period from the initial distribution, all the questionnaires were returned.

### Analyses of the Data

A SAS statistical package was used for the analyses of these data. This was a combination quantitative/qualitative study that tested the differences between male and female personal value perceptions, and summarized design preferences.

The statistical tests used for this study consisted of Chi-squares and frequencies. The Chi-square test tests the hypothesis of independence and was conducted at the .05 alpha level. The Chi-square test was used to determine whether core terminal value selection was independent of gender or whether significant relationships existed between the two variables. An individual Chi-square test was run for each of the fifteen terminal values. Frequencies were used to determine sample demographics, the five personal values attributed to students in school uniforms, and design preferences. When frequencies assigned to the design options in a single question were less than five percent apart in number, a design option was determined that would more accurately represent the preference of the group. However, this problem did not arise during the analysis of the data.

## Hypothesis Testing

The hypothesis in this study was tested using Chi-square tests, to determine whether a significant difference existed between the probability that a female participant chose  $x$  value and the probability that a male participant chose the same value. Fifteen separate Chi-square tests were performed to determine whether these probabilities were the same or significantly different. An alpha level of .05 was used for all tests. The alpha level is the probability of a Type 1 error in hypothesis testing.

A separate Chi-square test was run for each of the fifteen terminal values in question. Support for the hypothesis or rejection of the hypothesis was based on the Chi-square test's  $p$ -value at the .05 alpha level. If the  $p$ -value was higher than .05, the Chi-square test was regarded as not significant at .05 alpha level, and  $H_0$  was supported. If the  $p$ -value was .05 or lower, the Chi-square test was considered significant at .05 alpha level, and  $H_0$  was not rejected.



## CHAPTER 5

### Findings

The purpose of this study was to determine the preferences of uniform wearers for school uniforms for the middle school child. These preferences would be used as criteria to begin the design of a school uniform. The study was also conducted to determine whether the gender of a participant had any effect on the values attributed to uniformed students. This study also sought to measure to ensure that the wearer preference measure that was developed could generate school uniform design criteria. This chapter presents the description of the sample and the results of objective development and discussion of hypothesis testing.

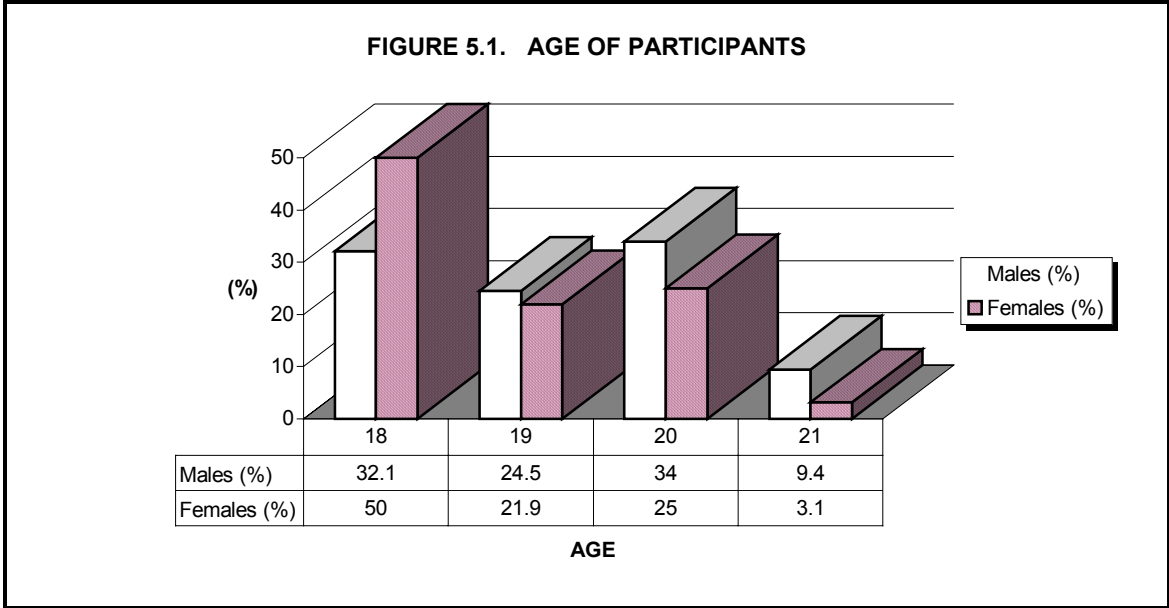
#### Sample Description

The final sample used in this study consisted of 85 participants (53 males and 32 females) from a corps of cadets organization at a large Mid-Atlantic university that combined military-style leadership development with traditional social and academic life. The data were collected within a two-week period in the month of November 1999. These individuals were selected because they experienced wearing a school uniform on a daily basis, and because they were a part of an organization that emphasized the value of an individual's character. A senior officer in the organization was given 120 questionnaires to distribute among the cadets under his command. Out of the 120 questionnaires that were sent out, 85 were returned and all were useable.

#### *Age*

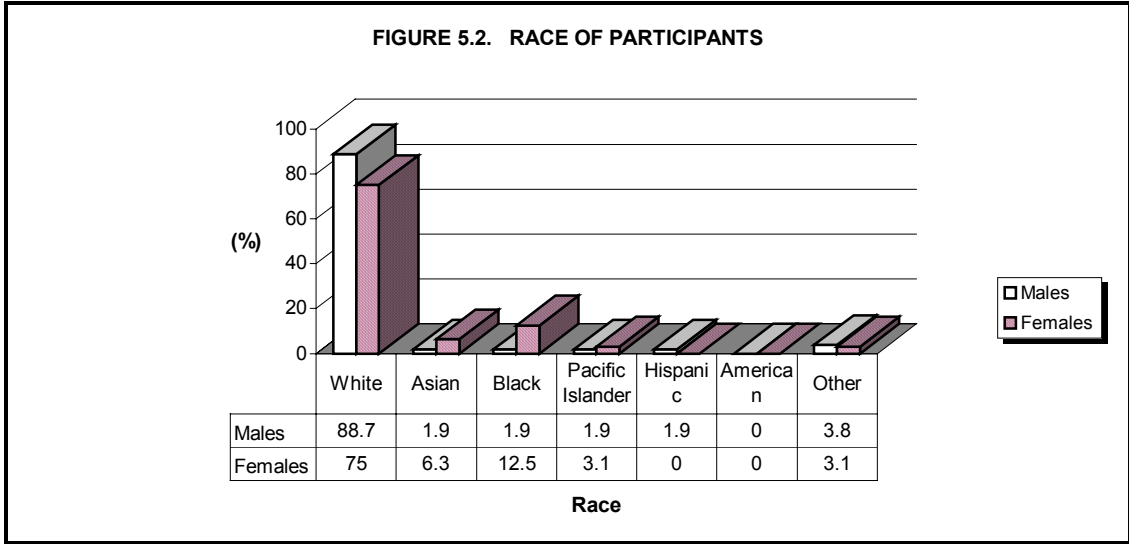
The 85 participants in this study ranged in age from 18 to 21 years. Of the 53 males surveyed, the age group that made up the largest set were the 20 year olds (34%), while the 21 year olds (9.4%) made up the smallest group. Figure 5.1 shows a relatively even distribution of male participants across the age groups, with the exception of the 21 year olds.

There were 32 participants in the female group of cadets surveyed. Fifty percent of these women were 18 years old, and only 3.1% were 21 years of age. This portion of the sample does not have an even distribution of participants across the age groups, as is evident in Figure 5.1. There appears to be an overwhelming number of 18 year-old female students, indicating a much younger sample as compared with the male participants in the study.



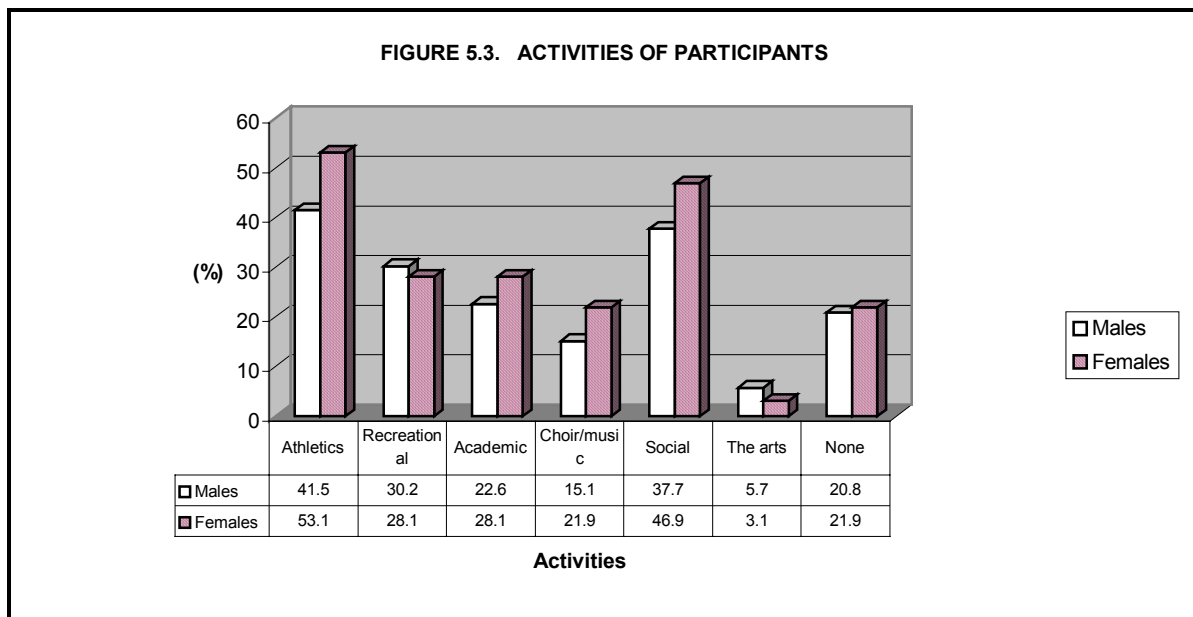
*Race*

The majority of the students who participated in this study were of Caucasian origin. The data showed 88.7% of the male participants in this study were Caucasians as were 75% of the females surveyed. Asian, African American, Pacific Islander and Hispanic males made up another 9.5% of this male sample, while the remaining claimed to be biracial. Figure 5.2 displays the rest of the distribution of race among the males and females in the study.



*Activities*

The extracurricular activities that were the most popular among the males and females are athletics (varsity or intramural sports) and social activities such as university or corps sponsored functions (military ball). The least popular activity among the males and females was that associated with the arts (museums, cultural performances). Activities associated with recreational sports that are not affiliated with varsity or intramural teams such as (bowling, tennis, billiards, swimming, hiking) were also popular among the participants. Figure 5.3 further details these results.



Male and Female Terminal Values Choices

The differences between male and female selections of personal values attributed to uniformed students were described using frequencies. Respondents were asked to select five values from a list of 15 that they thought were communicated nonverbally by uniformed students based on their experiences with school uniforms. These frequency distributions were analyzed to determine which five values among male and female participants were regarded as the values ascribed to uniformed students. Figure 5.4 shows the frequency distributions of each of the fifteen values.

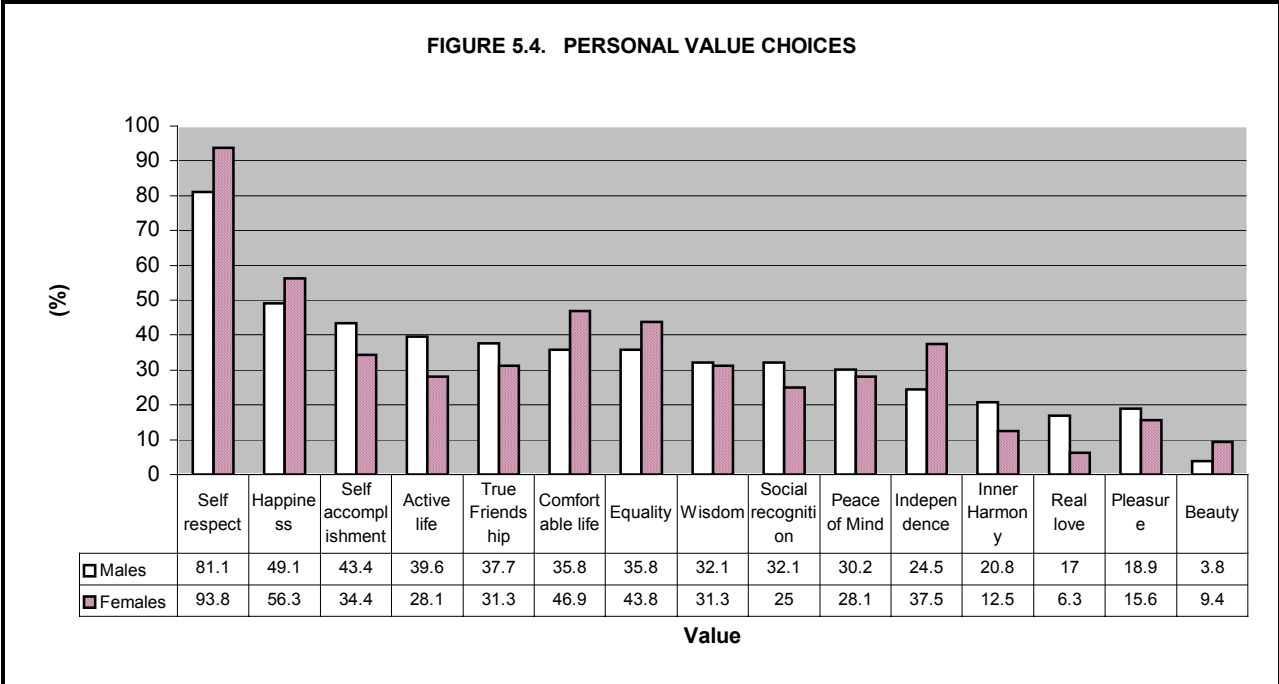


Figure 5.4 indicates that the five values that male participants attributed to uniformed male students were: (1) self respect; (2) happiness; (3) self-accomplishment; (4) active life; and (5) true friendship. While female participants ascribed: (1) self respect; (2) happiness; (3) comfortable life; (4) equality; and (5) independence, to uniformed female students. The females and males surveyed both considered “beauty” as the value least associated with a uniformed student.

Male and Female Preferences for School Uniform Design

Male and female respondents were asked to select their preferences for school uniform design based on their uniform wearing experience. Frequency distributions of these design preferences were evaluated to establish the final appearance of the school uniforms for male and female for middle school children. The results of the uniform design preferences are divided into three sections: (1) genderless garments; (2) male garments; and (3) female garments.

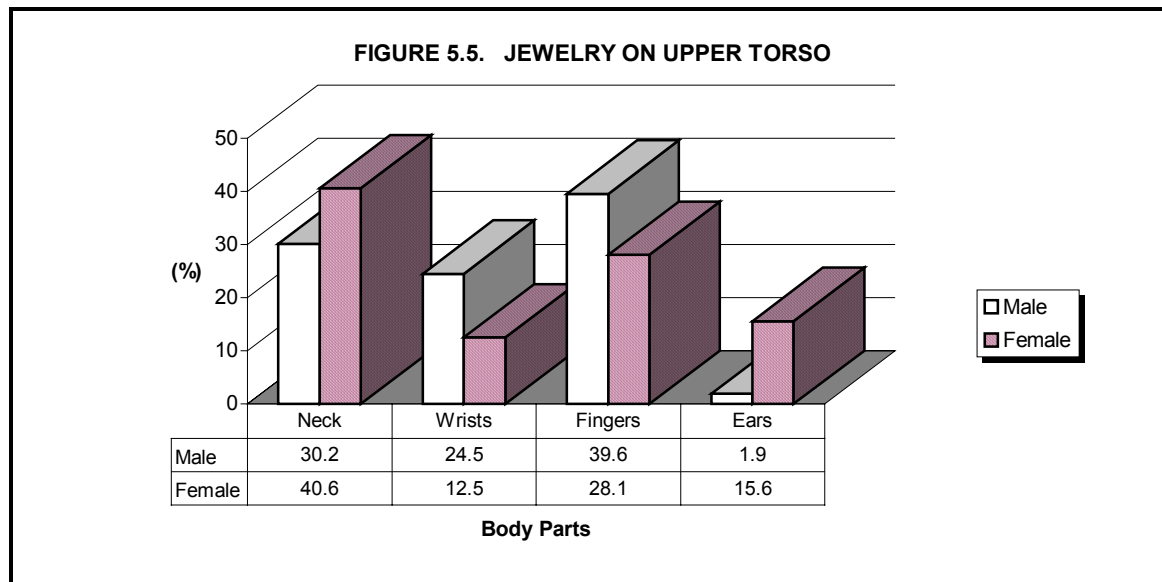
**SECTION 1: GENDERLESS GARMENTS**

This section pertains to genderless garments worn by male and female middle school students.

## ACCESSORIES

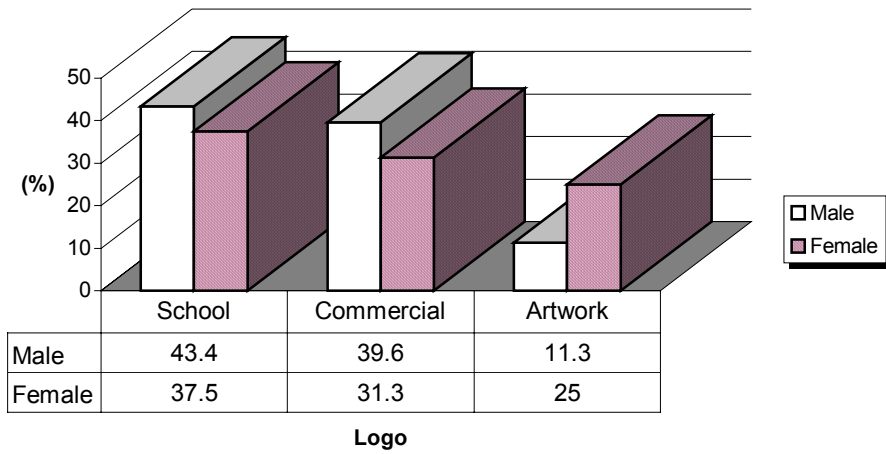
### Jewelry

Male and female students were first asked about the location of jewelry. They were given the options of: neck, wrists, fingers and ears. Figure 5.5 displays the results, which have female respondents preferring to wear jewelry around their necks (40.6%). However, male respondents showed a preference for jewelry on fingers (39.6%).



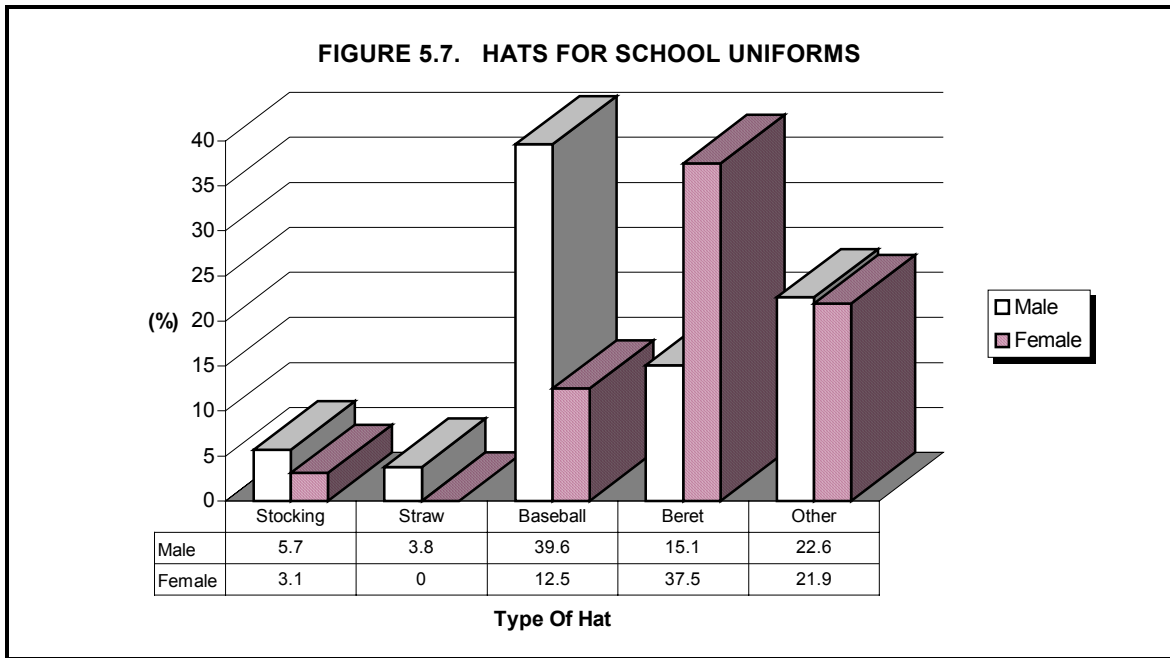
Respondents' preferences for whether students should wear watches with their school uniforms were next examined. Results showed that 96.9% of the female respondents and 94.3% of male respondents wanted students to wear watches to school. Of the 94.3% of male respondents who wanted students to wear watches to school, 43.4 % of them wanted the watch to have some sort of a school logo on it, while another 39.6% wanted the watch to have a commercial logo displayed on it. The female respondents who had initially responded favorably to students wearing watches as part of school uniform also preferred a watch with a school logo on it (37.5%), followed by one with a commercial logo (31.3%). Figure 5.6 has a display of the results.

**FIGURE 5.6. LOGO PREFERENCES FOR WATCHES**



*Hats*

Hats are also accessories to school uniforms. Male and female respondents indicated whether they wanted students to wear hats with school uniforms indoors, outdoors or not at all. Most of the female and male respondents wanted students to wear hats outdoors, while a smaller number wanted the students to wear hats indoors. Only one male respondent and two females didn't want students wearing hats at all. Those participants that wanted students to wear hats both indoors and outdoors were given a choice of hats. The hat style selected by the male respondents was the baseball cap (39.6%), and by the female respondents the beret (37.5%). The hat least selected among the female and male respondents was the stocking or knit hat. Figure 5.7 has a display of these results.



Only 40.6% of the female respondents that wanted hats worn with the school uniform indicated they did not want logos on them. While on the other hand, 64.2% of the males who were in favor of hats, also wanted visible logos on them. The male respondents in favor of logos on hats wanted a school logo.

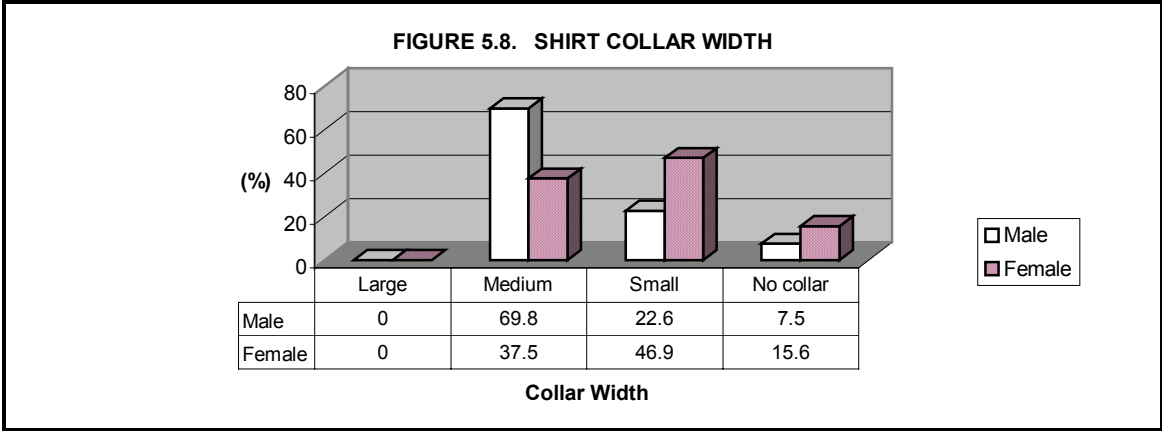
### *Belts*

Almost all male and female respondents wanted students to wear belts with their school uniforms. Among the males, a narrow belt made of canvas material was chosen, while the females preferred a narrow leather belt.

## *UPPER BODY GARMENTS*

### *Shirts*

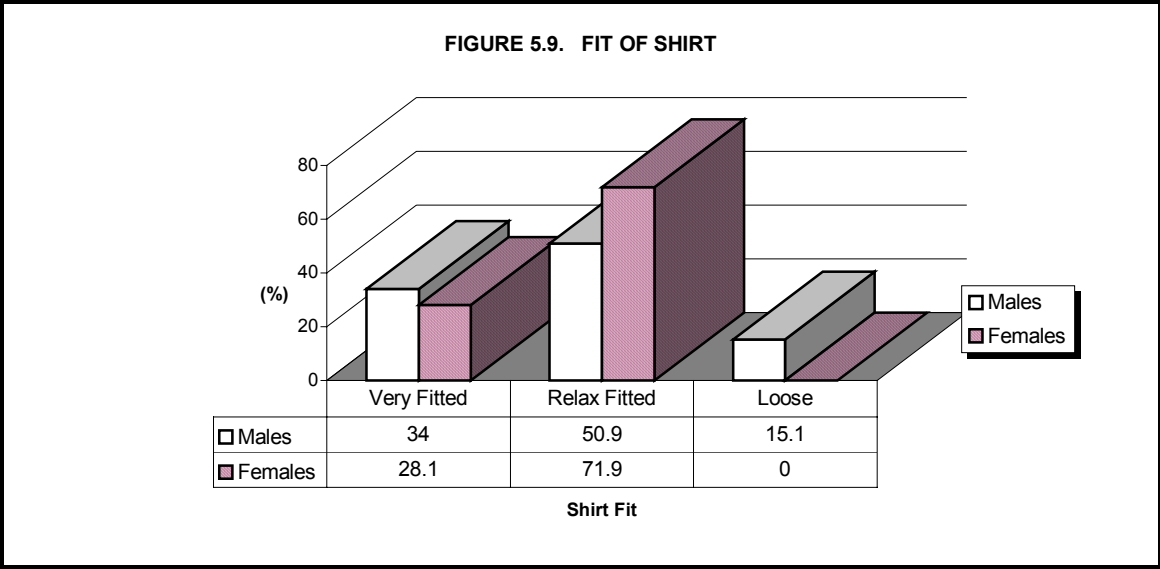
The collar was the first component that was considered in the design of the school uniform shirt for both male and female wearers. Seventy percent of the male participants selected a medium sized collar, while 50% of the female respondents wanted a small collar. Figure 5.8 includes the four collar widths and their related preference.



The type of sleeve that 57% of the male participants wanted on the school uniform shirt was long. The remaining sample wanted them short. The type of sleeves that female respondents preferred were either long or short sleeved, depending on the weather. Both sleeves received 40.6% from the females. Sleeveless shirts received no votes from either gender. Those participants that had selected long-sleeved shirts were asked if they preferred a long sleeved shirt that was cuffed at the wrist or one which had a straight opening at the wrist. Both male and female participants preferred a cuffed sleeve.

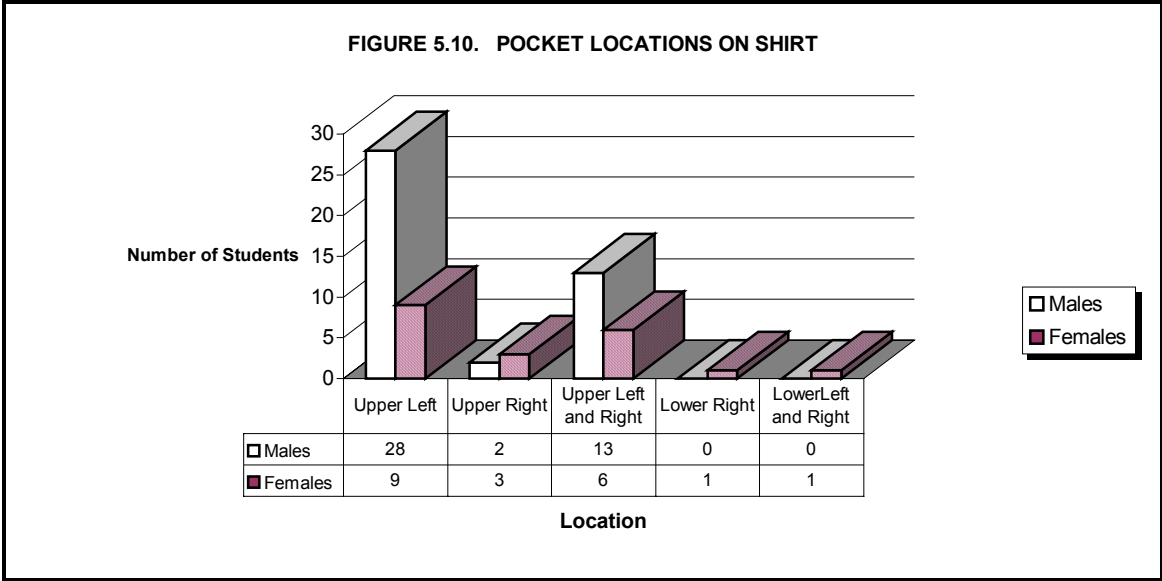
Choices of shirt length were: (1) at waist, (2) 2” below waist, and (3) 4” below waist. Most of the female respondents (68.8%) responded favorably to shirts that reached at least two inches below the waist, while 47% of the male respondents showed a similar response for shirts that reached at least four inches below the waist. Both genders wanted a shirttail hem. Fifty-one percent of the males and 71.9% of the females in the study wanted a shirt that was relaxed (not loose, not tight). Both males (85%) and females (100%) thought that loose fitting shirts were inappropriate. Figure 5.9 displays the results of the fit question.





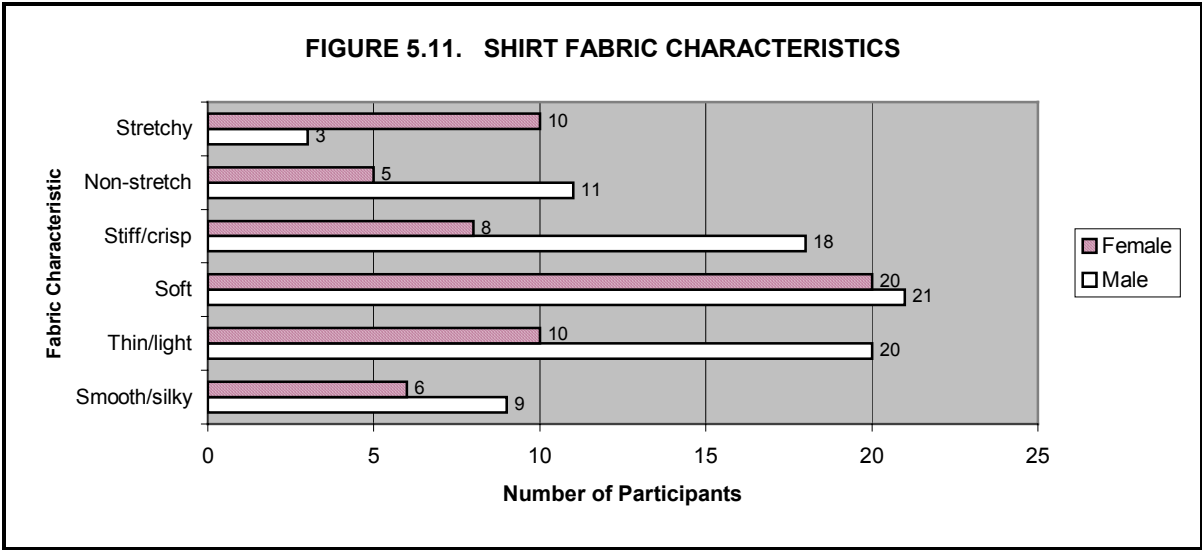
An opening with a fastener is needed in a shirt, in order to don and doff the shirt with ease. When posed with the question of the location of the opening, 86% of the male respondents wanted a full center opening. Similarly, 87.5% of the female respondents favored a full opening down the center front of the shirt, while the remaining 12.5% chose a six-inch opening. Both males (96.2%) and females (87.5%) surveyed wanted button fasteners for shirt openings. Zippers (3.8%) were the other form of fastener selected by male participants, while snaps (6.3%), zippers (3.1%) and no closings (3.1%) were chosen by the female respondents. Neither group of respondents chose Velcro as a fastener on the shirts.

The majority of the student participants decided that there should be a pocket on the shirt. Male and female participants specified the pocket location to be on the upper left hand side of the front of the shirt. They also showed interest in two pockets, one located on the upper left and the other opposite side on the front of the shirt. Figure 5.10 illustrates the various pocket locations.



Note: Number tallies for each pocket location on the shirt were done in real numbers and not percentages.

Subjects chose a shirt fabric that was soft as well as thin and/or light. The male group went on to describe a shirt that was stiff and/or crisp and non-stretchy, while the female group opted for stiff and/or crisp but yet stretchy fabric characteristics. Figure 5.11 further presents these results.



Despite the previous results that indicated a preference for thin and/or light fabric for the shirt across the sample, when participants were questioned about the actual fabric weight that they

wanted the shirt in, 70% of males and 75% of females in the study wanted a fabric that was medium weight. The fact that participants wanted a thin/light fabric of medium weight could be partially related to opacity. Respondents may have interpreted the characteristic thin/light as being transparent, and therefore went to counteract that shirt characteristic by selecting a medium weight fabric. Heavy weight fabric was the least desirable fabric weight for the shirt among this pool of participants.

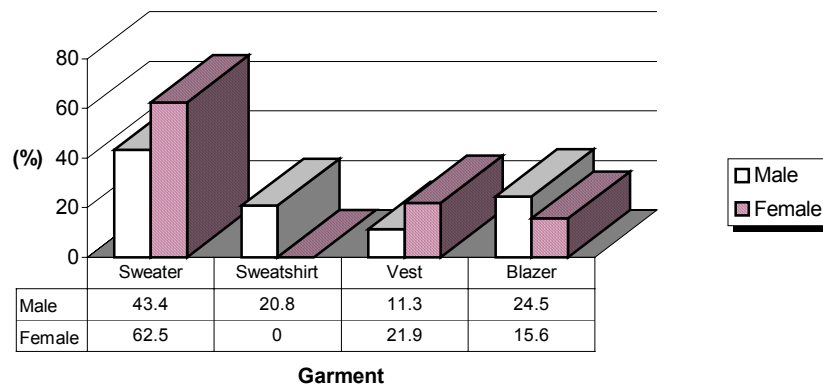
Choices of fabric pattern were: (1) stripes, (2) plaids, (3) solids and (4) prints. Both groups (98.1 % males, 96.9% females) identified the solid color as the pattern of choice. While white and blue were the two colors most favored by both groups, the men chose white shirts and the women blue shirts. Bright and vivid colors such as purple, orange and yellow were least favored by both sexes, while darker colors like black and gray fared better among the males than they did among the females.

The preference for lighter colors versus darker or brighter colors was clearly evident in the participants' choice of colors for the shirts. However, this preference more directly affected the shades of color that males selected for shirts. More than half (54.7%) of the male respondents wanted light shades of color for the school uniform shirt, while female respondents were split between dark shades of color (53.1%) and light shades of color (46.9%), or perhaps liked both equally or wanted more than one color.

### *OVER GARMENTS*

Preferences for four garments (sweaters, sweatshirts, vests and blazers), which may be worn over the shirt, as part of the school uniform were investigated. Participants were allowed to pick only one type of over garment, which a student could wear over his or her shirt. Figure 5.12 has the outcome.

**FIGURE 5.12. SWEATERS, SWEATSHIRTS, VESTS OR BLAZERS**



### *Sweaters*

Sweaters were the most selected over garment. Of the 53 male respondents in this study, 23 (43.4%) chose a sweater over a sweatshirt, vest or blazer. Twenty (62.5%) females out of a pool of 32 also opted for a sweater versus a sweatshirt, vest or blazer. Male respondents described a loose-fitting sweater that had a natural v-shaped neckline rather than a high or loose neckline, with cuffed sleeves. Similarly, female respondents chose a loose-fitting sweater that had a natural v-shaped neckline, with cuffed sleeves. Each participant identified the fabric properties and the color characteristics that the sweater would feature. Soft and stretchy were important elements of the sweater for the participants. Rough/fuzzy and smooth/silky fabrics were of less importance to the group as a whole.

When it came to the topic of fabric weight, males (63%) and females (66%) wanted a sweater that was medium weight. Lightweight sweaters were the least preferred. Male (96%) and female (78%) cadets wanted the sweater to be solid colored. The two solid colors that were selected were blue and black. Eighty-nine percent of the males and 72% females went on to choose dark shades of both black and blue colors for the sweater in question.

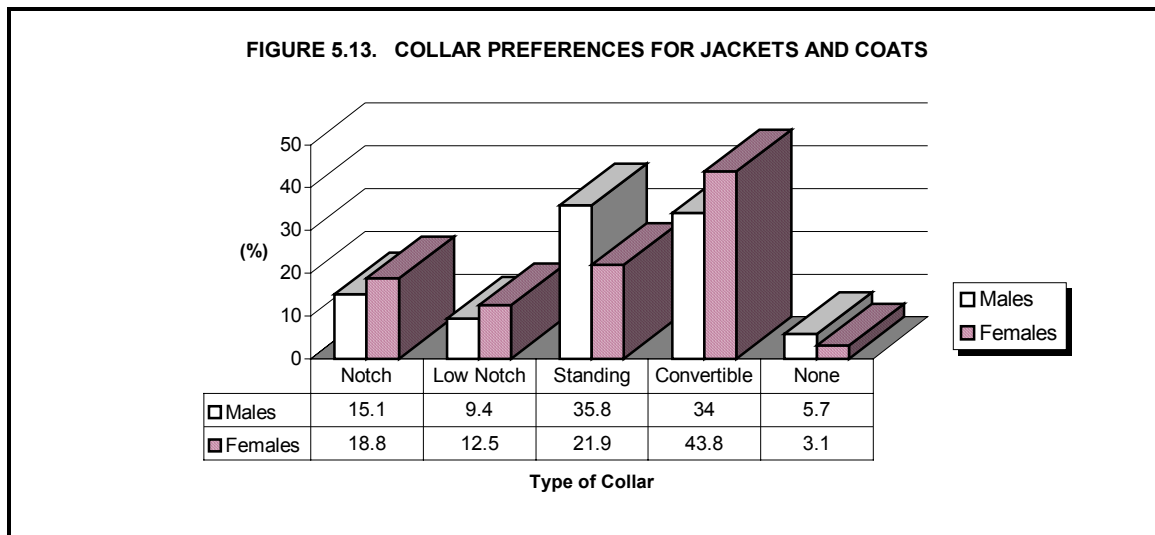
### *Jackets and Coats*

Male and female participants described the style of coats and jackets that they wanted middle school children to wear as part of their school uniforms. They started off by describing the length of the outer garment. Fifty-nine percent of male respondents and 82% of female

respondents both answered this question by selecting an outer garment with a length that fell at least four inches below the waist. When asked to specify the type of hemline they wanted on the outer garment, 55% of the males wanted a hemline that was straight without a drawstring or elastic, and so did 69% of the females surveyed.

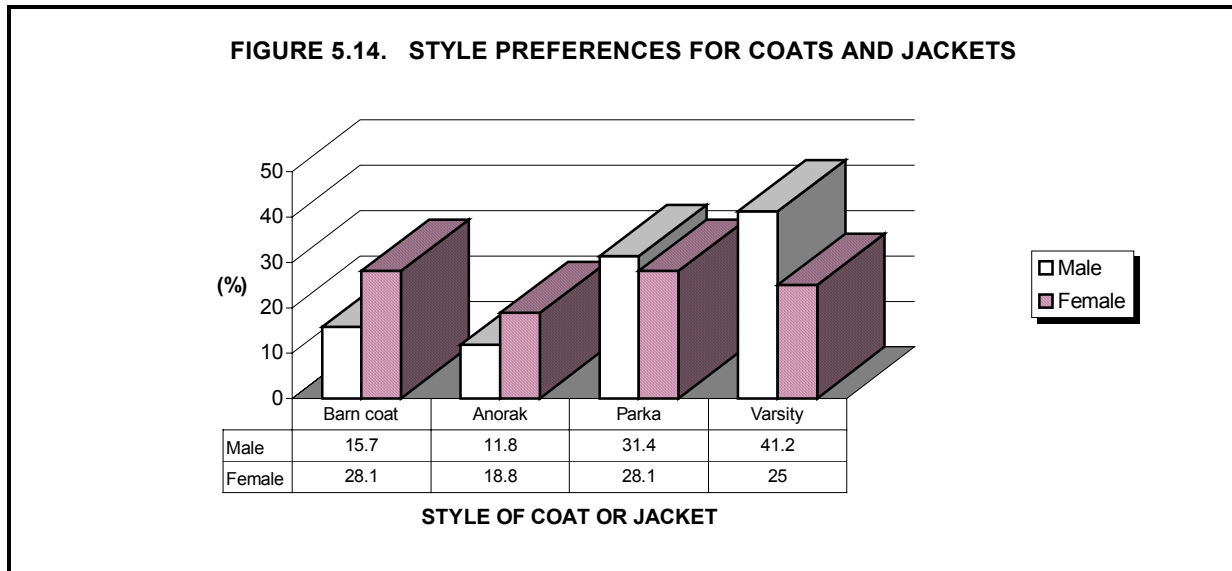
Participants were asked to indicate where they would prefer to have the opening of the jacket or coat. They were given three choices: (1) down the center front, (2) half-way down the center front, and (3) at the side. Ninety-one percent of the male respondents and 85% of female respondents chose to have the opening down the center front of the jacket or coat. The remainder of the male and female participants opted for an opening halfway down the center front of the jacket or coat. Neither group of students chose to have the opening in the jacket or coat located at the side. The type of fastener that males and females preferred to use to open and close these openings in the jacket or coat was the zipper. Seventy-one percent of the male respondents and 78% of the female respondents chose a zipper. The only other type of fastener that had appeal among the respondents was a button. Twenty-five percent of the males and 22% of the females chose buttons.

Preferences for the types of collars on the school uniform jacket or coat were examined. Figure 5.13 displays the results.



The data show male preference for a standing ribbed neck collar on their coat or jacket, while female preference was for a convertible style of collar. When participants were asked about

the style of jacket or coat that they preferred middle school students to wear as part of their school uniform, 41% of the males voted for a jacket with a standing ribbed neck. The female respondents were split equally (28%) between a barn coat and a parka. The standing ribbed neck jacket came in as a third choice with a 25% selection rate. Figure 5.14 illustrates the outcome.



More than half (55%) of the male participants and 37% of the female participants wanted sleeves on their jacket or coat that were elasticized around the wrist. The choices to have the sleeve of the jacket or coat cuffed or left straight at the wrist was split equally between the rest of the males (23%) and females (31%) in each group. However, when asked to stipulate whether they preferred the bottom edge of the jacket or coat to be tightly fit or loosely fit, 66% of the males responded favorably to loosely fit bottom edge, while only 34% favored a tight-fitting bottom edge. Among the females, 75% of the participants favored a loosely fitted bottom edge, while 25% opted for a tightly fitted bottom-edge.

The characteristics of the fabrics that male and female wanted these jackets and coats constructed out of were either smooth/silky, soft, quilted, waterproof, stiff/crisp or rough/fuzzy. Participants were allowed to choose as many of these fabric characteristics as they wanted. Seventy-seven percent of the males surveyed and 75% of the females preferred a fabric that was waterproof. Fabric softness was a concern of 38% of the males and 56% of the females. On the subject of fabric pattern, all the male participants wanted a solid-colored fabric, as did most of the females (94%). All subjects preferred black and blue colors, while the colors yellow, red,

orange, and purple received the lower rankings. When these participants were asked what shade of color they wanted the school uniform jackets and coats to be made in 85% of the males and 91% of the females responded favorably to a dark shade.

The participants were asked whether hoods should be a part of the design criteria for the school uniform jackets and coats, and males (50.9%) and females (65.6%) agreed that they should be incorporated into the school uniform jacket or coat. Among the males, the question of whether to have a hood on the jacket or not was split almost evenly between those who wanted a hood (50.9%) and those who did not (49.1%). However, the male group of respondents was not as equally split on the idea of logos on school uniform jackets and coats. Fifty nine percent of the males responded favorably to logos on school uniform jackets and coats, as did 56% of the female respondents. The data showed that the respondents, who had responded favorably to logos, wanted a school logo versus a commercial logo on the jacket or coat. They wanted this school logo to be placed on the left breast of the jacket or coat.

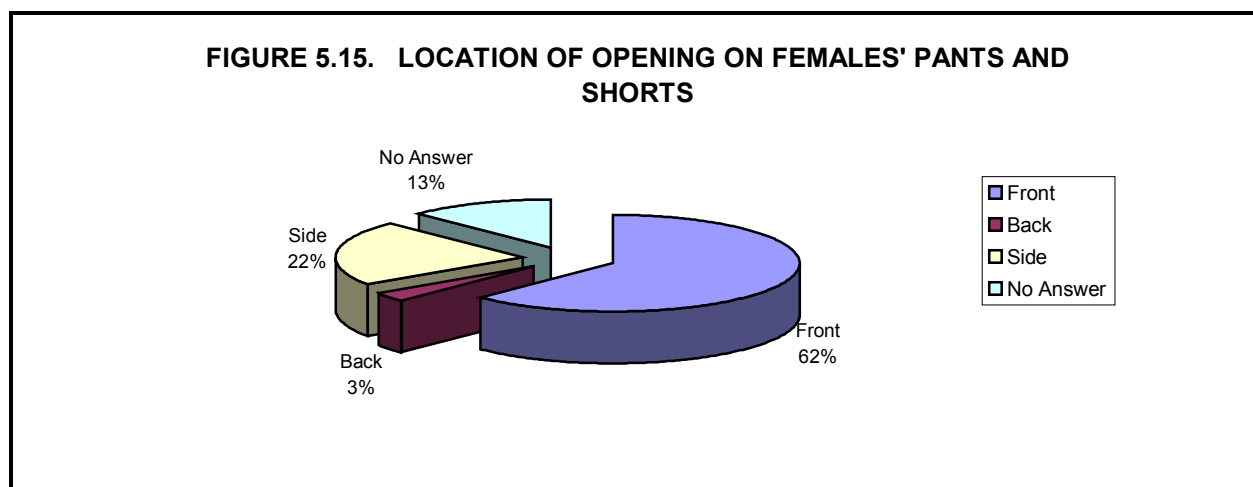
### *LOWER BODY GARMENTS*

Student participants were asked to indicate their preferences for garments middle school students would wear on the lower half of their bodies such as pants, shorts, and shoes. All male participants were required to answer this part of the questionnaire, but their female counterparts were given an option between three garments: (1) long pants and shorts, (2) skirts, and (3) skorts. They were required to select two lower body garments out of the three. Long pants and shorts was the section selected by 91% of the females in this study, therefore long pants and shorts will be treated as genderless garments.

#### *Long Pants and Shorts*

The fit of the long pants and shorts was the first question posed to male and female participants. Data showed that 53% of the males wanted a relaxed fit pair of pants and shorts, while 34% preferred them somewhat fitted, and 11% wanted a baggy fit. Seventy-eight percent of the females preferred a relaxed fit pair of pants or shorts, while 6% preferred fitted garments and 3% preferred a baggy fit. The rest of the male and female respondents did not respond to this

question. Male (77%) and female (59%) respondents wanted these garments to have a waistband that was flat, non-elasticized with a zipper and buttons at the front. (See Figure 5.15).

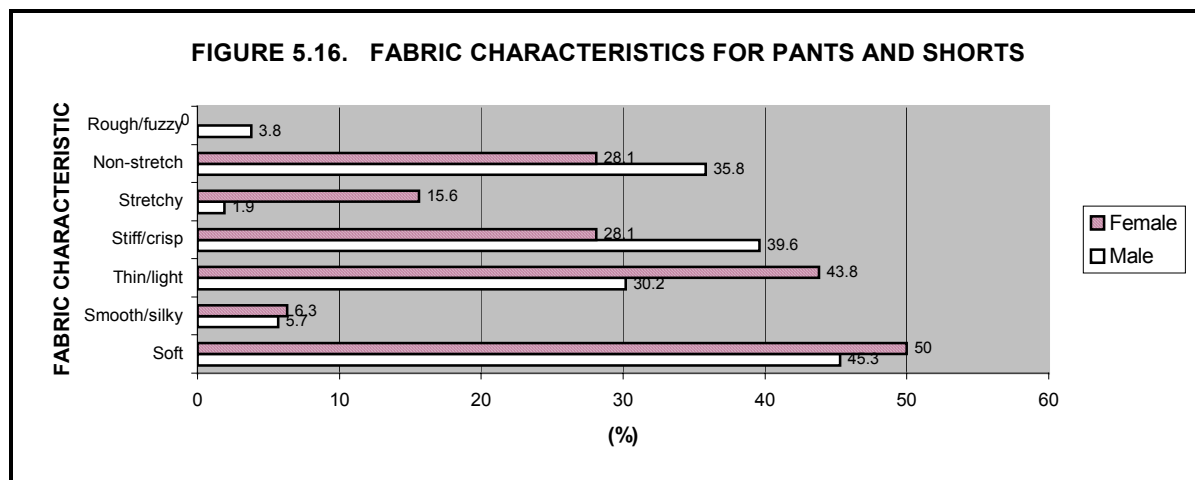


Almost all the males (98%) and 81% of the females chose pockets in the pants and shorts. Almost all of those who wanted pockets in the pants and shorts wanted two pockets located at the side seams on the front of the pants and one located at the back left. On the shorts, male and female respondents once again, placed two front pockets at the side seams, and one at the back left.

Male and female participants were asked how long they wanted the pair of school uniform shorts to be. Sixty-six percent of the males responded by selecting a pair of shorts that were “slightly above the knee” in length. Another 23% of the male respondents opted for a longer length—a pair of shorts that reached slightly below the knee in length. Sixty percent of the females preferred the pair of school uniform shorts to reach the mid-thigh in length, while another 28% of the female sample opted for the school uniform shorts to reach slightly above the knee.

Figure 5.16 illustrates male and female respondents’ fabric preferences for the school uniform pants and shorts.





The fabric characteristics that male and female participants in this study chose were soft, stiff/crisp, and non-stretch. The type of fabric weight males and females preferred for the school uniform long pants and shorts was a medium weight fabric.

All male participants and 78% of the female participants wanted the fabric of the school uniform long pants and shorts to be a solid color. The hues that male participants chose for school uniform pants and shorts for middle school boys were khaki and black, and the female participants in the study also opted for the same colors for middle school girls' pants and shorts. Both male and female participants went on to show a clear preference for dark shades of color for the pants and shorts.

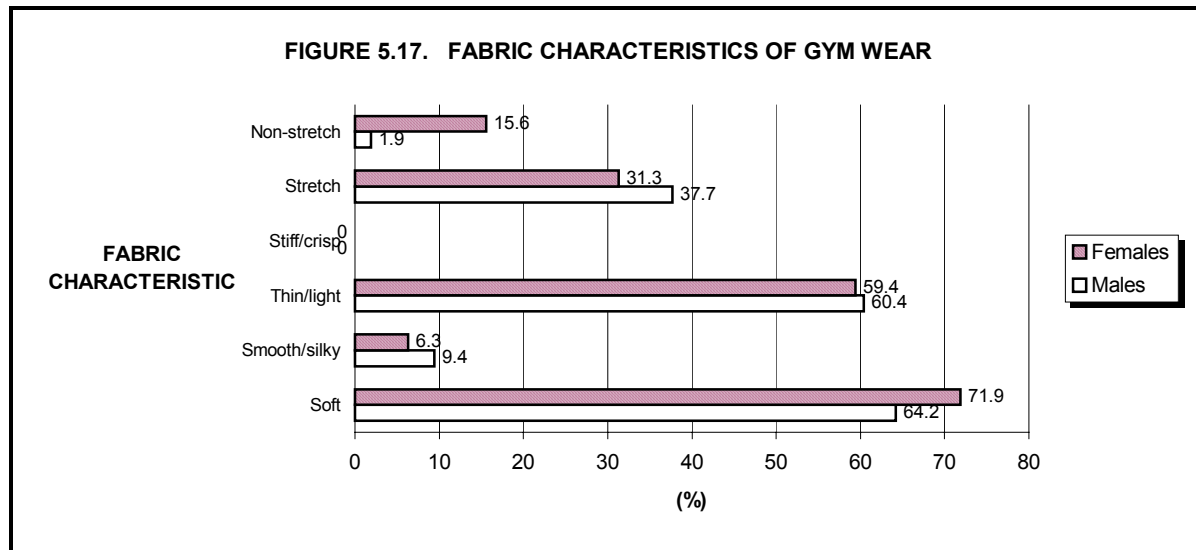
When male and female participants were asked to select the sock length, almost half (44%) of the female participants selected a mid-calf length, while 28% wanted knee length socks, 16% opted for ankle socks. The remainder of the female sample did not respond to this question because they did not select long pants and shorts as the garments they wanted female middle school students to wear on the lower half of their bodies. While 74% of the male participants selected mid-calf socks to be worn with pants, 24% selected ankle socks to be worn with pants, and the remainder preferred knee length socks with pants. The rest of the participants opted for ankle socks. For shorts, 77% of the male participants preferred ankle-length socks, while 21% opted for mid-calf socks, and another 2% wanted knee-length socks worn with shorts. Female participants preferred ankle socks (63%) worn with shorts, and only 16% of them chose knee length socks and another 9% preferred mid-calf socks worn with shorts. Once again there was no response from the

rest of the sample because long pants and shorts were not among their preferences of lower body garments for middle school girls.

The color of the socks and the type of shoe that middle school children would wear to school along with the school uniform pants and shorts were pertinent to this study. So participants were asked to state their preferences from a number of options. Fifty-six percent of the female respondents wanted middle school girls to wear black colored socks with non-athletic lace-up shoes with pants, as did the male respondents (76%) want middle school boys to wear black colored socks with non-athletic lace-up shoes. Males and females chose white colored socks and athletic style shoes for middle school children to wear along with their school uniform shorts.

*GYM WEAR*

The results from questions posed to participants pertaining to the clothing they would prefer male and female middle school children to wear during their physical education classes are presented in this section of analysis. The first of these questions dealt with fabric characteristics of gym clothing. Participants were allowed to select as many fabric characteristics as they pleased. The results are presented in Figure 5.17.



The fabric characteristics of gym clothing that females selected for gym clothing were soft (71.9%), thin/light (59.4%) and stretchy (31.3%). Male participants opted for the same fabric characteristics. Seventy percent of the males in this study and 75% of the females agreed that the

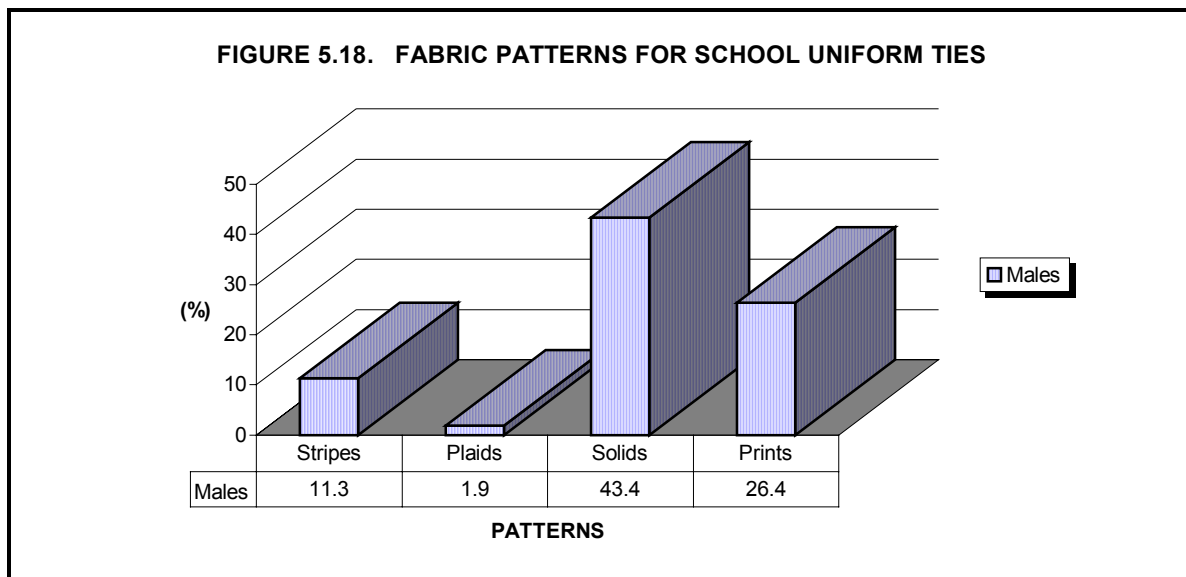
fabric weight of the gym clothing should be lightweight. Seventy-eight percent of the females and 49% of the males sampled wanted the fit of the gym clothing to be somewhat loose. The appropriate areas on the male and female body that gym clothing should cover during physical education were the torso and upper thighs and upper arms.

## SECTION 2: MALE GARMENTS

Male garments were clothing items that appeared only on male school uniforms.

### *Neckties*

Male respondents were asked to indicate whether or not neckties should be worn with school uniforms. They were given the options of: (1) always, (2) sometimes, and (3) never. Fifty-seven percent of them chose option (2) –sometimes. While another 27% selected “always”, and the remainder “never”. Those respondents that had responded to this question with “always” or “sometimes” were asked to indicate what type of pattern they wanted on the neckties. Forty-three percent of these respondents preferred the student to wear to school a tie made from a solid colored fabric. (Figure 5.18)



### SECTION 3: FEMALE GARMENTS

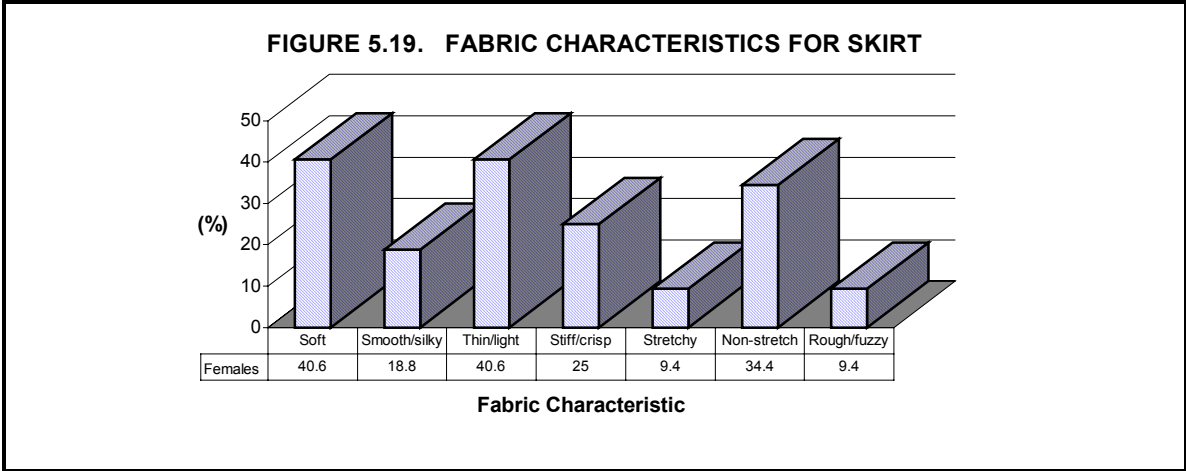
Female garments were clothing items that appeared only on female school uniforms.

#### *Skirts*

Long pants and shorts and skirts were two out of three garments that female participants chose for middle school girls to wear on their lower bodies. Eighty-four percent of the female sample selected a skirt as their second option, while 91% had selected pants as their first option. Female participants wanted school uniform skirts for middle school girls, which were somewhat loose fitting. When asked about the type of waistband they preferred on this garment, 40.6% of the group chose a flat waistband that had no belt loops on it while another 22% opted for a waistband with belt loops, and yet another 19% preferred no waistband. The remainder of the sample did not select any one of the options because skirts were not one of the lower body garments that they had chosen for middle school girls to wear. Participants were asked to indicate how long they preferred the skirt to be; the majority (59%) of the female respondents preferred the length of the skirt to reach just above the knee. When given the option from three types of skirt, the participants responded most favorably to the pleated skirt. Thirty-eight percent of the surveyed women preferred the pleated uniform skirt versus an A-line skirt (25%), or a straight skirt (22%).

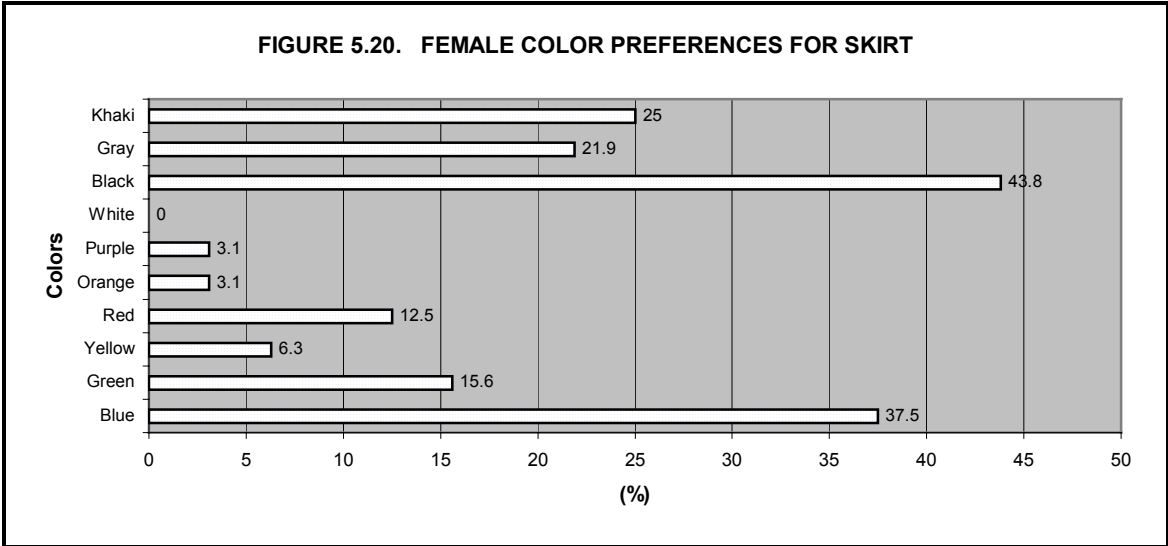
Most of the participants (63%) did not want a pocket on the school uniform skirt. Fifty-six percent of the participants placed the opening of the skirt at the side, and 71% of them wanted the opening fastened with a zipper and buttons.

Female participants were asked to select the fabric characteristics that they would use to best describe their fabric preferences; Figure 5.19 has the outcome of their choices.



Female participants in this study preferred fabrics that were soft, thin/light, and non-stretchy for the school uniform skirt. The respondents considered fabrics that were stretchy and rough/fuzzy unsuitable for the school uniform skirt. When asked to choose skirt fabric weight from a choice of three fabric weights, the female respondents picked a medium weight fabric.

Sixty-three percent of the females wanted a solid-colored fabric for the school uniform skirt versus a striped, plaid or printed fabric, and when asked to select their two favorite colors for the skirt, 38% of them chose blue and 44% of them chose black. Figure 5.20 displays the results to the color question.



Respondents went on to endorse dark shades of color for the school uniform skirt instead of bright or light colors.

Female participants were asked to decide on the type of hosiery with skirts that they preferred, from the following options: (1) leggings/stockings, (2) knee-length socks, and (3) ankle length socks. Forty-seven percent of the respondents chose a leggings/stockings, while another 35% selected knee-length socks. Ankle length socks were the least preferred type of hosiery. Fifty-four percent of these respondents went on to select slip on shoes. Another 28% of the respondents wanted female students to wear non-athletic lace-up shoes with their school uniform skirts.

### Hypothesis Testing

The hypothesis in this study was developed based on the first objective of the study (to determine if there is a difference between the five values that male and female students chose to associate with uniformed students), and tested using Chi-square tests. The hypothesis was:

$H_0$ : The probability that a female participant chose  $x$  terminal value is the same as the probability that a male participant chose this same terminal value.

$H_1$ : The probabilities are different.

The relationship between gender and personal values was examined using 15 independent Chi-square tests. In Chi-square tests in which 25% or more of the cells had expected counts less than 5, the results from the 2-Tail Fisher-Exact test were used. The 2-tail Fisher-Exact test was used versus the Left or Right Tail Fisher-Exact tests because the alternate hypothesis in this study stated that the two variables being tested are different, but not in which direction they are different.

Support or rejection of the null hypothesis in this study was based on the  $p$ -value at the .05 alpha level. If the  $p$ -value was higher than .05 the Chi-square test was considered not significant at the .05 alpha level. If the  $p$ -value was .05 or lower, the Chi-square test was regarded as significant at the .05 alpha level. Results from the 15 Chi-square tests did not show significant differences between the probability that a female participant chose a specific terminal value, and the probability that a male participant also chose that same terminal value. All fifteen Chi-square tests yielded probabilities that were higher than the .05 alpha level, at which the tests were conducted. Therefore,  $H_0$  was supported. The results from the Chi-square tests performed on the fifteen terminal values are presented in Table 5.1.

Table 5.1

Gender by Selection of Terminal Values

Variable	Males (n=53)		Females (n=32)		Statistic	DF	$X^2$	p-value
	C	NC	C	NC				
Independence	13	40	12	20	$X^2$	1	1.6171	0.2035
Self-respect	43	10	30	2	Fisher's Exact	--	--	0.1055
Self accomp.	23	30	11	21	$X^2$	1	0.6766	0.4108
Equality	19	34	14	18	$X^2$	1	0.5244	0.4690
Happiness	26	27	18	14	$X^2$	1	0.4135	0.5202
Active Life	21	32	9	23	$X^2$	1	1.1550	0.2825
Comfortable life	19	34	15	17	$X^2$	1	1.010	0.3147
True friendship	20	23	10	22	$X^2$	1	0.3675	0.5444
Wisdom	17	36	10	22	$X^2$	1	0.0063	0.9369
Peace of Mind	16	37	9	23	$X^2$	1	0.0409	0.8397
Beauty	2	51	3	29	Fisher's Exact	--	--	0.3601
Inner Harmony	11	42	4	28	$X^2$	1	0.9355	0.3334
Social recog.	17	6	8	24	$X^2$	1	0.4811	0.4979
Real love	9	44	2	30	Fisher's Exact	--	--	0.1956
Pleasure	10	43	5	27	$X^2$	1	0.1444	0.7040

Note. Dashes indicate that the  $X^2$  was not a valid test in this case. C= Number of participants that chose the specified terminal value. NC= Number of participants who did not choose the specified terminal value.

The Chi-square results presented in Table 5.1 show  $p$ -values that are higher than the .05 alpha level, and  $H_0$  is only rejected at  $p$ -values that are smaller than .05. Therefore,  $H_0$  was supported in the case of each terminal value that was tested against gender, suggesting that the probability that a female participant chose any one of the fifteen terminal values was the same as the probability that a male participant selected any one of the fifteen terminal values.



## CHAPTER 6

### Discussion

In this chapter the study is summarized, conclusions and implications of the study are drawn based on the findings, and recommendations for future research are presented. This chapter is presented as follows: (1) summary of study and conclusions, (2) implications, and (3) recommendations.

#### Summary

The purpose of this research was to identify the uniform design preferences of uniform wearers and to examine the terminal values that these students thought were visually communicated by students in school uniforms. This research also attempted to determine whether there were significant differences between male and female perceptions of terminal values nonverbally communicated by uniformed students. The uniform design preferences of the group would ultimately reflect the design criteria for middle school males and females uniform design.

The literature reviewed in this study related to personal values, adolescent clothing behavior patterns, uniforms, students' attitudes and perceptions towards uniform adoption, and wearer preference measures. The conceptual framework centered on social cognition and appearance perception. The contextual framework was the Boles Design Process.

The instrument used to collect data was a questionnaire entitled: (1) Wearer Preference Measure for the Female Uniform-Wearer, (2) Wearer Preference Measure for the Male Uniform-Wearer. Each questionnaire was made up of three major parts: (1) demographics, (2) personal value statements, (3) uniform design preferences. The first part of the questionnaire was a list of fifteen value statements adapted from the Rokeach Value Survey that was used to identify the five terminal values that respondents, based on their experiences with school uniforms, attributed to uniformed students. The second part of the questionnaire requested demographic information from the respondents. The third section of the questionnaire was used to measure the respondents' uniform design preferences.

For this study, one hypothesis was formulated to investigate whether the probability of a female respondent choosing a terminal value was the same as the probability of a male respondent choosing the same terminal value. This hypothesis was based on one of the objectives of the study that sought to determine existing differences between the terminal values that male and female respondents chose to ascribe to uniformed students.

The respondents for this study were a convenience sample of 85 (53 males and 32 females) participants from a corps of cadets organization at a large Mid-Atlantic university that combines military-style leadership development with traditional social and academic life. Most of the respondents were between the ages of 18 to 21 years and were of Caucasian origin. Participants were awarded with merit points used to eliminate accumulated demerits by the corps organization. The fact that these participants were on the whole under the age of 21 years, maybe an indication of who has accumulated the most demerits and needs demerit reduction. Similarly, the fact that the 50% of the females sample were 18 years of age may be an indicator that 18 year old female cadets are more inclined to demerits than their senior counterparts. On the other hand, this large distribution of 18 year old females in the sample surveyed may also be an indicator of the age of females that make up the greater part of the female population in the cadet corps' organization. Perhaps, by their senior year most females have dropped out of the organization, thereby giving rise to the population of younger female cadets. Another possible explanation for the rise of the female population at the freshman and sophomore level could be that there has been a rise in female recruitment at the freshman level –a spin off of the VMI (Virginia Military Institute) and Citadel cases. These individuals were selected because they experienced wearing school uniforms on a daily basis, and because they were part of an organization that emphasized the value of an individual's character.

The data were analyzed using Chi-square tests and frequencies. The Chi-square tests were used to determine whether terminal value selection was independent of gender. Frequencies were used to assess the sample demographics, the five terminal values ascribed to uniformed students, and male and female respondents' preferences for middle school students' school uniforms.

The fifteen independent Chi-square tests performed on gender by the selection of each of the fifteen terminal values yielded results that indicated that there were no significant differences

between the probability of a female respondent choosing a certain terminal value and the probability of a male respondent selecting that same terminal value. These findings suggested that the probability of a male and female respondent ascribing any one of the fifteen terminal values to a uniformed male and female student was the same, they are genderless. These findings are supported by the results of McCarrey and Weisbord-Hemmingsen's (1980) study of Canadian male and female undergraduates, which reported an overall similarity of value selection between the sexes. These findings also support the fourth principle that Joseph and Alex (1972) outlined as an important characteristic of a uniform: The uniform suppresses individuality by attempting to curb eccentricities in behavior and appearance. This means that the standardization of dress is itself a source of group-imposed conformity, and so the perceptions of visual cues from uniformed individuals, especially their values, are based on a controlled appearance that has been defined by the organization of which these individuals are a part. Therefore, the uniformed individual's own interests and values become subordinate to organizational goals. The respondents in this study were asked to base their selection of values attributed to uniformed students on their personal experiences with uniform wear. These respondents are part of an organization in which specific values are upheld and honored by all its members, and so the overall similarity of value selection between the sexes was expected.

In this study, frequencies were used to determine the five personal values male and female respondents ascribed to uniformed students. The five values that male participants attributed to male uniformed students were: (1) self-respect, (2) happiness, (3) self-accomplishment, (4) active life, and (5) true friendship. For the females in this study: (1) self-respect, (2) happiness, (3) comfortable life, (4) equality, and (5) independence, were the values ascribed to female uniformed students. Male and female respondents considered the value "beauty" to be the least desirable in a uniformed student. This study found that male and female respondents ascribed the values self-respect and happiness as the two most desirable values in a uniformed student. These findings are supported by Linder and Bauer (1983), who in their study of the perceptions of values among 50 male and 80 female undergraduate students, found that the male and female students both ranked self-respect as the most important value to them, and happiness was ranked as the second most important value for females and the fourth most important values for males. Linder and Bauer (1983) also reported that "beauty" was one of the values considered as an unimportant attribute to

male and female students. Their respondents gave this value a second-to-last ranking. Despite the fact that Linder and Bauer conducted their study in the early eighties, it appears that time has not affected value choices for this age group.

The other values selected by the sample in this study differed from the findings of the 1983 Linder and Bauer study. Male participants considered self-accomplishment, active life and true friendship as values also attributed to uniformed students. The selection of these three values may be a direct influence of the military education and lifestyle that these participants are subjected to on a daily basis. Self-accomplishments are encouraged, recognized and rewarded with medals and stripes of honor, while physical fitness is an integral part of the program maintaining the efficacy of the group as well as a positive overall image. The importance placed on true friendship may be a direct effect of the military promotion principle that the group is more important than the individual. The camaraderie formed among the members is based on the total reliance on each other to carry out the goals of the organization.

These findings are related to Maslow's (1991) suggestion of a possibility of a connection between happiness and self-actualization that was written in a paper in 1964. Maslow thought that happiness was associated with striving and fulfillment. He contended that happiness couldn't be sought directly but rather that it is a product of doing something with inherent purpose. Happiness, he believed, might be best conceptualized as a product of being committed to a worthy task and as working in a dedicated way. Maslow linked happiness with meaning and purpose. Based on their experiences, the male participants in this study attributed happiness, self-respect, self-accomplishment, active life and true friendship to uniformed students. The accomplishments, self-respect and friendships that these respondents attained in their organization produced meaning and purpose in their lives, thereby prompting them to identify them as valuable to uniformed students. These respondents also identified happiness as one of the most important factors to uniformed students of their experience, confirming Maslow's thought that happiness was associated with motivation and fulfillment.

Happiness may also be attributed to feelings of belonging and not being lonely. This statement is made from the observation of interviews conducted with students who killed their fellow students in school (Synder & Sickmund,1995). Many of them said that they were not happy

because they felt rejected by their peers. They were lonely and did not have many friends. These killers did not feel that they belonged to the school and were somewhat disconnected from it.

Although the female participants' selection of the values, equality and independence may also be a direct influence of the military organization of which they are members, equality for women in the military and society-at-large has been at the forefront of the women's movement. Most cultures throughout the world have historically given men and boys preferential treatment in a broad range of life matters: education, food, healthcare, employment opportunities, and decision-making authority (Population Bulletin, 1995). As women head more households, elevating women's status becomes an even more urgent national concern. Female-headed households tend to be poorer than those headed by men, and many women have all the household responsibilities without the power or resources necessary to meet them. Women are not treated as equals to men in the workplace. Women are paid less than men throughout the world, although the gap is somewhat smaller in developed countries (Population Bulletin, 1995). Women earn less than men because they lack access to high-paying managerial and supervisory positions, and because they receive lower pay for comparable jobs. The uniform design criteria generated in this study are genderless reflecting the equality between the sexes and the concomitant changing lifestyles. A genderless classroom reflected in genderless uniforms should remove yet another barrier to equality.

Education is the prime avenue for elevating women's status in society and the military is no exception. Only recently were women accepted at the traditionally Southern all-male military academies, such as The Citadel or The Virginia Military Institute. Organizational cultures such as the military have undertaken a civic commitment to create conditions of equality. These conditions are inclined to reflect the shifting boundaries between females and males (Kanter, 1977). Barriers against women in all branches of service began to fall in the early 1970s, when the military became all volunteer. As a result, the proportion of women in the military has climbed from 1.9% in 1972 to nearly 12% in 1996 (Donegan, 1996). Before that time women served only in national emergencies. The most dramatic changes in women's status occurred after the Gulf War. More than 7 percent of the 540,000 Americans who served in Operations Desert Storm and Desert Shield were women, and it was the first time in U.S. military history that most of the women deployed had not been nurses (Donegan, 1996). Following the war, opportunities for women increased, which

meant that 80% of all military jobs, and more than 90% of all career fields were opened to the most qualified individuals, men or women (Donegan, 1996).

Independence and equality for women have been driven by the politics of gender in society, and are connected. Women's independence is dependent on the improvement of their status, although efforts designed to elevate women's status are unlikely to succeed if they do not have the backing of men. Men have a decisive role in eliminating gender disparities because they hold the power to influence societal thinking. The extent and pattern of women's participation in the labor force, as well as the extent to which their wages tend to be lower than men's, are among the employment-related inequalities that shape women's ability to obtain status and resources as individuals; thus they shape women's economic and social dependence on men. Family ties are also associated with women's dependence; data on marriage, fertility, and economic dependency within marriage offer evidence of variations in dependence across nations.

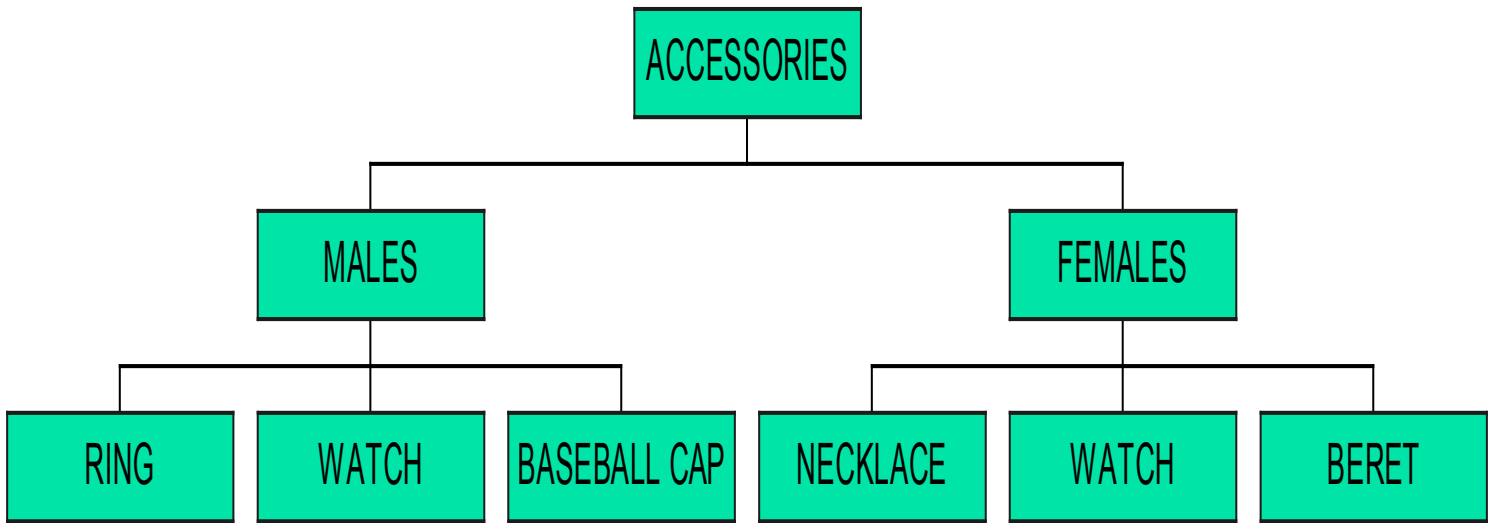
The value these female participants placed on a comfortable life may be related but not exclusive to their economic and social independence. Americans want to be comfortable not only in their homes, but also at work. These attitudes have given birth to flexible work options that not only involve the time employees arrive at or leave the office, but also how they get to the office and where they work.

Americans from the beginning of their clothing industry have been associated with "comfort". Sportswear and casual clothing are American creations and the core of their industry's business. Since clothing is a reflection of the times, the culture, and the individual, comfortable, informal, easy living is the reflector. Although male participants did not give the terminal value "comfortable life" a top five position, this value was the sixth most selected value among the males in this study, suggesting that the lifestyle in America has a similar effect on men's attitudes towards comfort. An example of clothing comfort from the design criteria generated is evident in the soft as well as thin and/or light fabric characteristics that participants chose for a shirt. Participants went on to select a shirt of relaxed fit versus one that was either very fitted or loose.

Frequencies were also used to identify design criteria for males and females uniform design. The uniform design criteria were combined and composite drawings of the uniform preferences follow.

# UNIFORM DESIGN CRITERIA FOR MIDDLE SCHOOL STUDENTS

*FIGURE 6.1. ACCESSORIES*





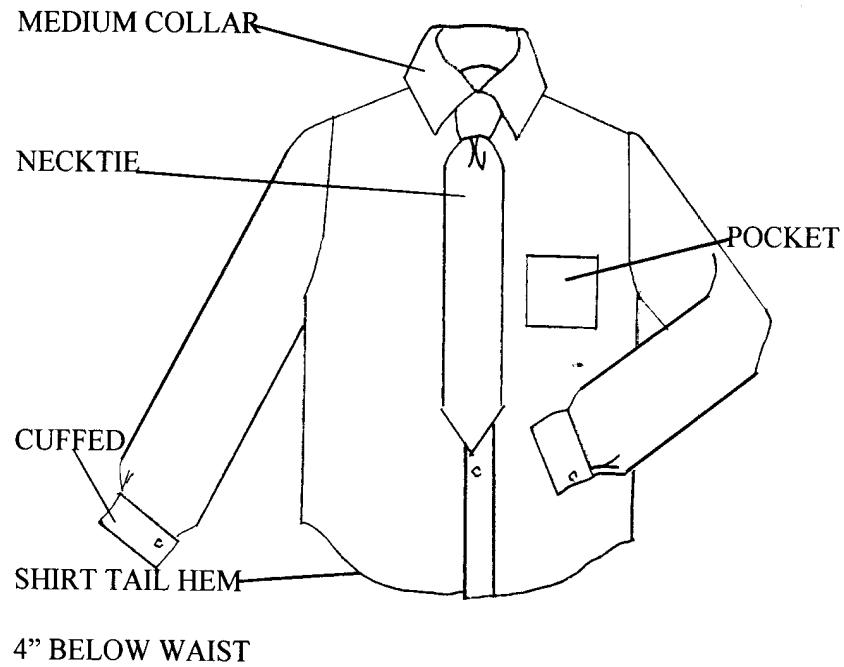
**FIGURE 6.2. SHIRTS**

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**MALE**

Fabric Descriptors: Light weight, thin/light, stiff/crisp, non-stretchy

Color Descriptors: White, Light shades of blue

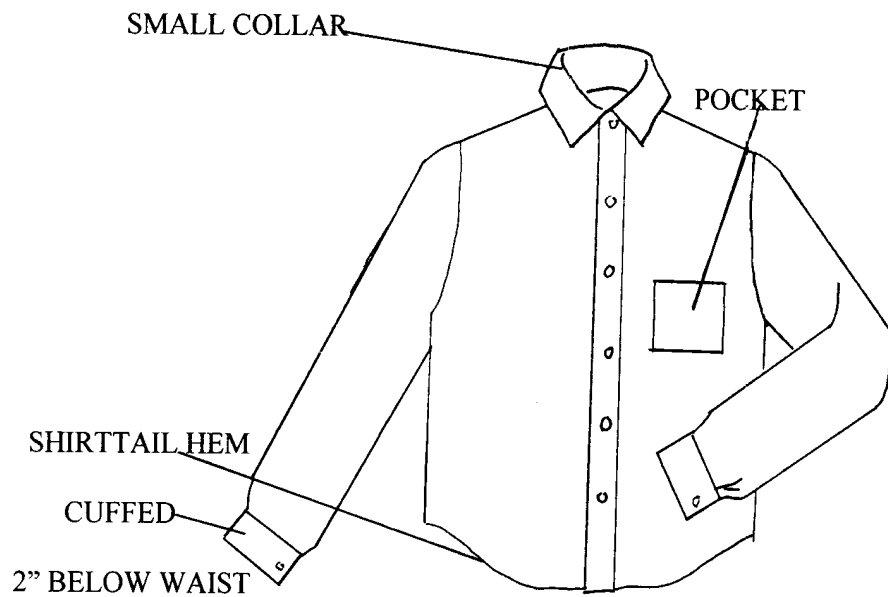


BUTTONS DOWN FRONT

**FEMALE**

Fabric Descriptors: Light weight, thin/light, stretchy

Color Descriptors: White, Light shades of blue



BUTTONS DOWN FRONT

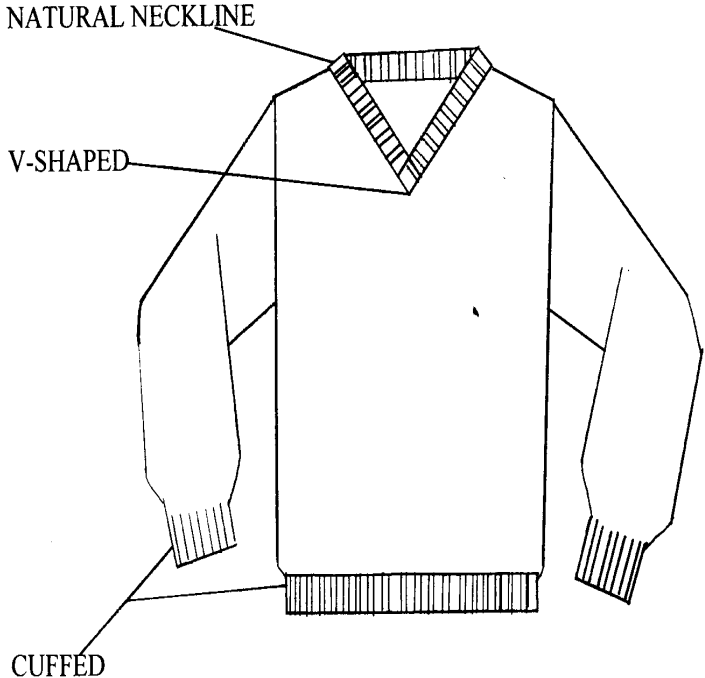
**FIGURE 6.3. SWEATERS**

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**MALE**

Fabric Descriptors: Medium weight, Soft, Stretchy

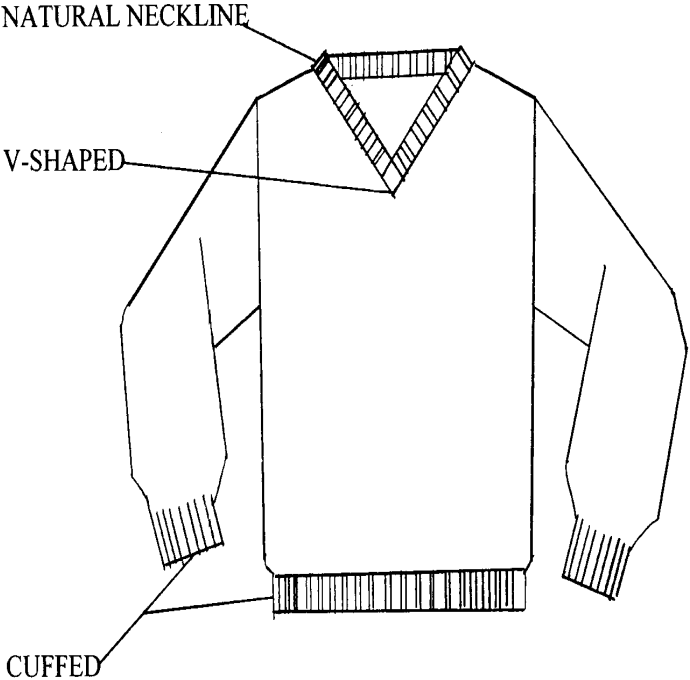
Color Descriptors: Black, Dark shades of blue



**FEMALE**

Fabric Descriptors: Medium weight, Soft, Stretchy

Color Descriptors: Black, Dark shades of blue



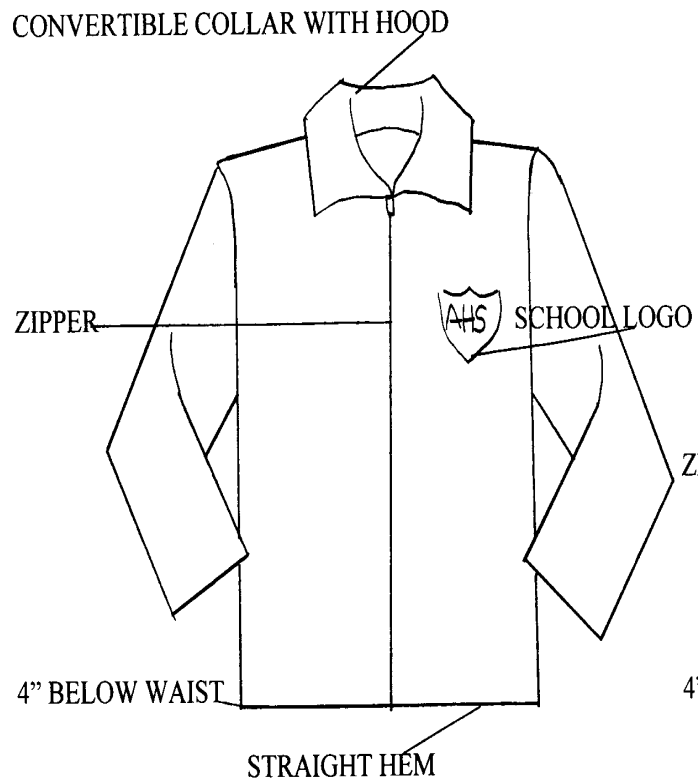
**FIGURE 6.4. COATS**

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**MALE**

Fabric Descriptors: Soft, Waterproof

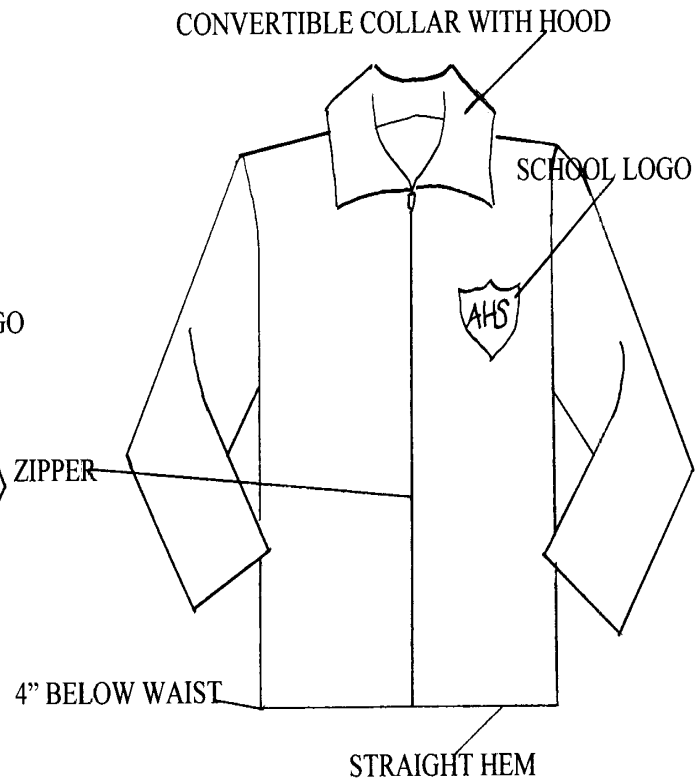
Color Descriptors: Black, Dark shades of blue



**FEMALE**

Fabric Descriptors: Soft, Waterproof

Color Descriptors: Black, Dark shades of blue



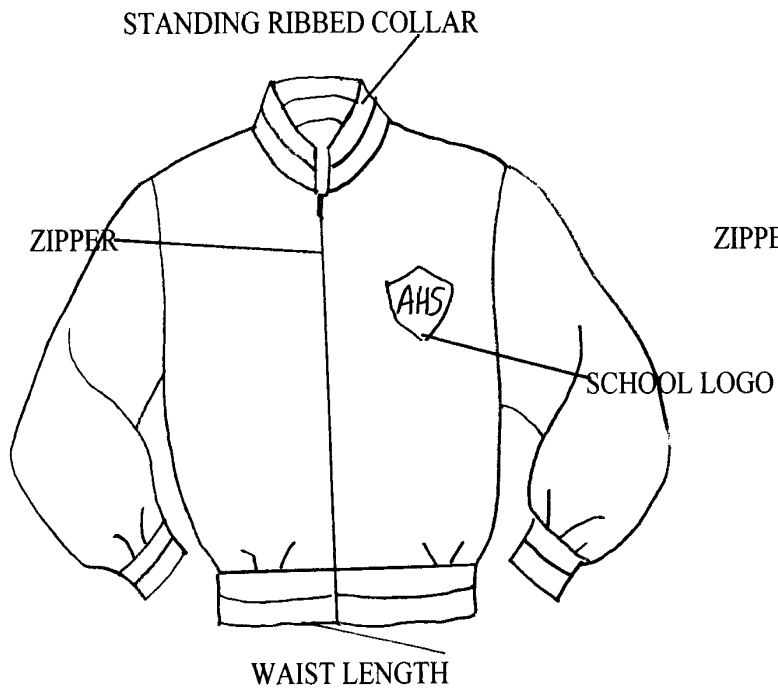
**FIGURE 6.5. JACKETS**

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**MALE**

Fabric Descriptors: Soft, Waterproof

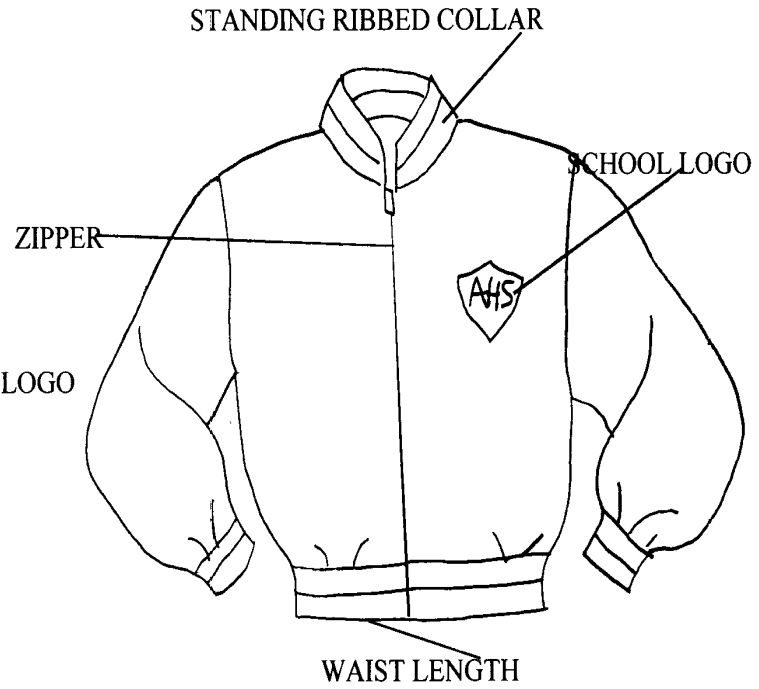
Color Descriptors: Black, Dark shades of blue



**FEMALE**

Fabric Descriptors: Soft, Waterproof

Color Descriptors: Black, Dark shades of blue



**FIGURE 6.6. LONG PANTS**

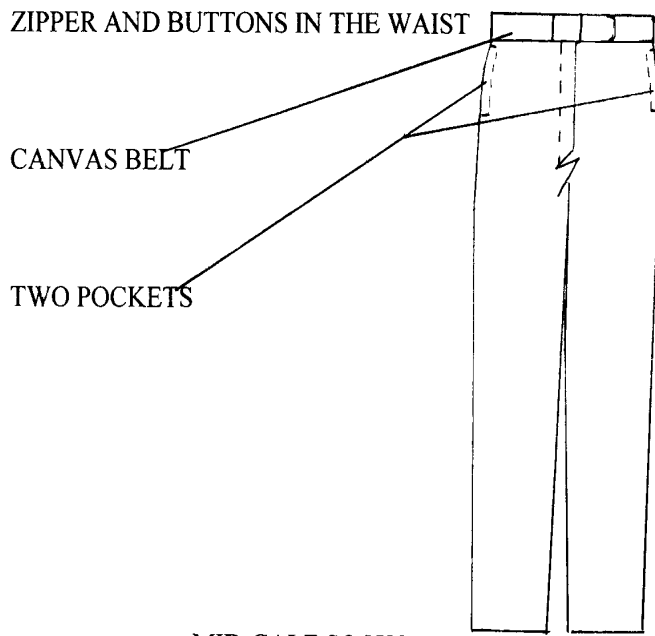
---

**MALE**

Fabric Descriptors: Medium weight, Stiff/crisp, Thin/light

Non-stretch, Soft

Color Descriptors: Black, Khaki



•MID-CALF SOCKS

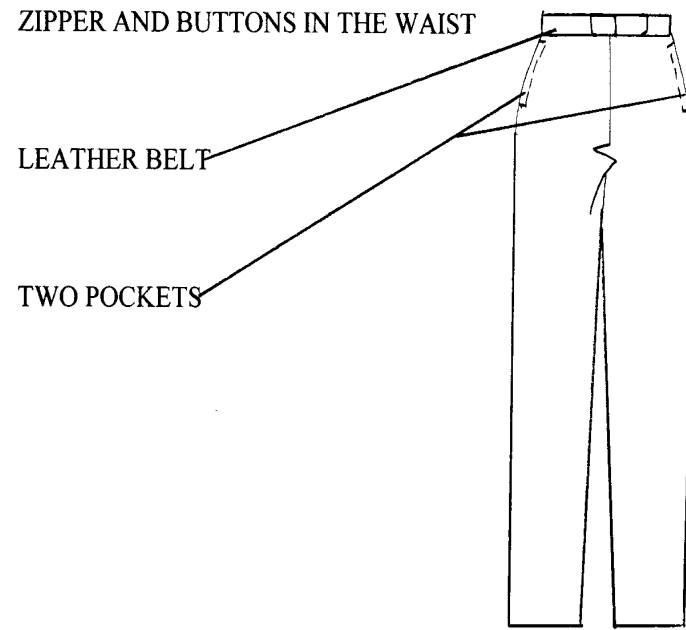
•NON-ATHLETIC SHOES

**FEMALE**

Fabric Descriptors: Medium weight, Stiff/crisp,

Thin/light, Non-stretch, Soft

Color Descriptors: Black, Khaki



•MID-CALF SOCKS

•LACE-UP SHOES

**FIGURE 6.7. SHORTS**

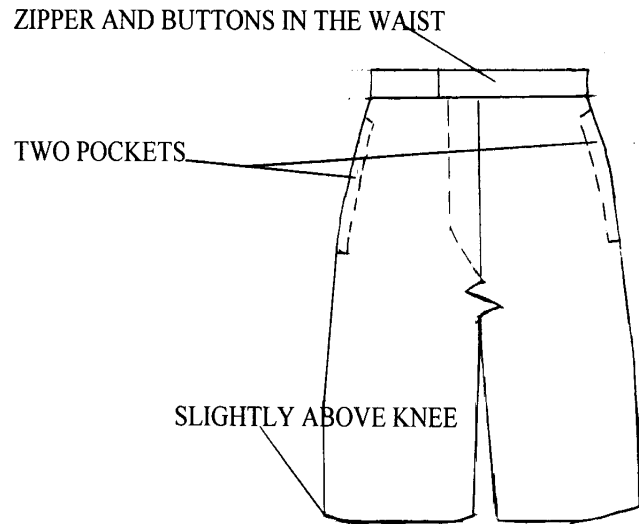
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**MALE**

Fabric Descriptors: Medium weight, Stiff/crisp, Thin/light

Non-stretch, Soft

Color Descriptors: Black, Khaki



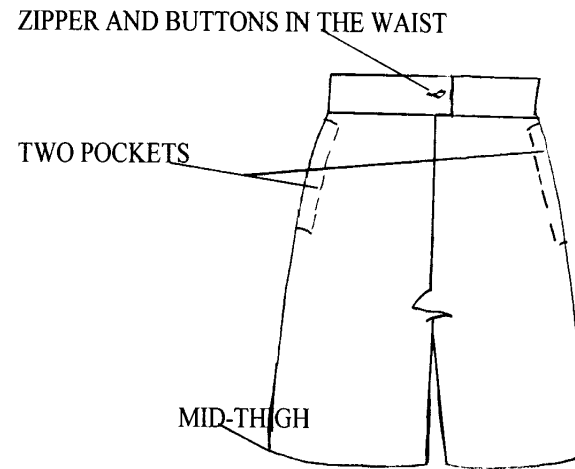
- ANKLE SOCKS
- ATHLETIC SHOES

**FEMALE**

Fabric Descriptors: Medium weight, Stiff/crisp,

Thin/light, Non-stretch, Soft

Color Descriptors: Black, Khaki



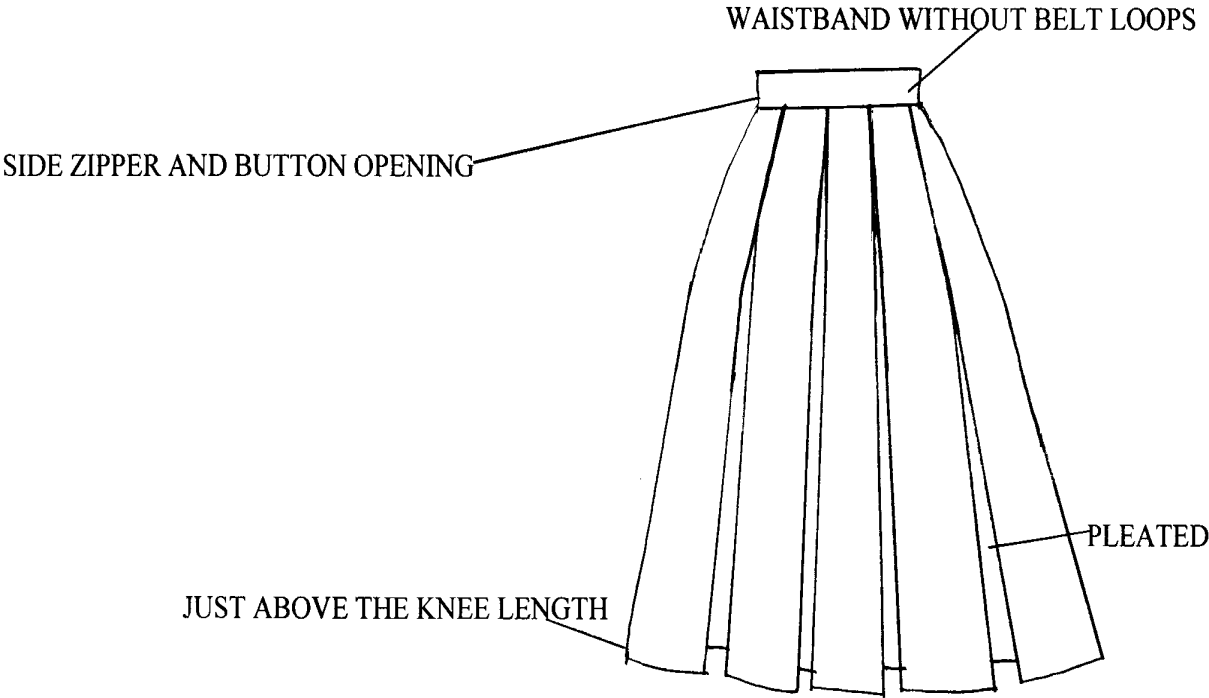
- ANKLE SOCKS
- ATHLETIC SHOES

**FIGURE 6.8. SKIRT**

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**FEMALE**

Fabric Descriptors: Medium weight, Soft, Thin/light, Non-stretch



- LEGGINGS/STOCKINGS
- SLIP-ON SHOES

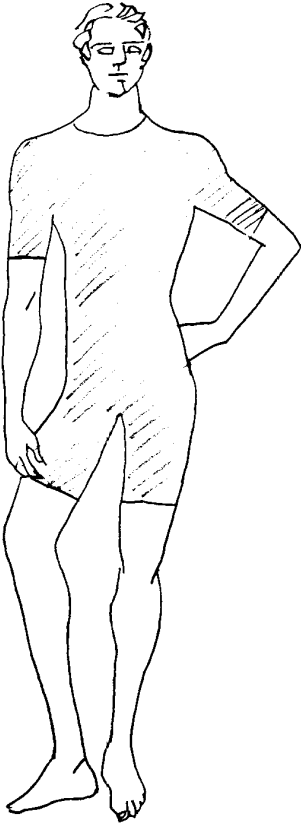
**FIGURE 6.9. GYM WEAR –Coverage criteria/no styling**

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**MALE**

Fabric Descriptors: Lightweight, Soft, Thin/light, Stretchy

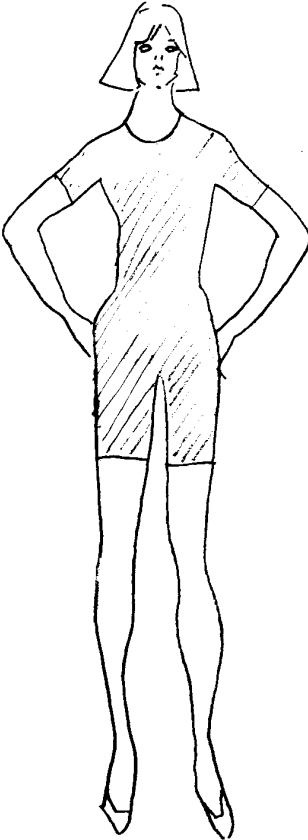
COVERS FULL TORSO PLUS UPPER THIGHS + ARMS



**FEMALE**

Fabric Descriptors: Light weight, Soft, Thin/light, Stretchy

COVERS FULL TORSO PLUS UPPER THIGHS + ARMS





The generated wearer preferences became the design criteria for males and females school uniforms, which can be used to fulfill the goals of the larger study. This instrument can be used to develop an interactive or participatory uniform design system for schools that want to select uniforms for adoption by qualitatively “morphing” the design criteria of the different participant groups.

The expert panel that had been assembled to make decisions on design criteria that were split almost equally between participants was not used in this case; as such problems did not arise. Preferences that were close in response rate were found among those questions in which participants were allowed to select more than one option as an answer, such as questions on color and fabric descriptors.

The preferences of the sample in this study were based on their personal experience with wearing school uniforms. Many similarities were found between the current school uniforms that these participants wore and their preferences for school uniform design for middle school students. One of which was the selection of colors for components of the school uniform. Many of these color selections directly corresponded with the colors of the school uniform component this sample wore. A good example being the color of the shirt since the shirts that the respondents wore as part of their school uniforms were either white or blue, and they selected white and blue colored shirts for middle school students. Another similarity that was discovered was the type of belt that male respondents selected to be worn with lower body garments. They chose a narrow belt made from canvas material. Although, the belts these male participants wore with the lower body garments of their uniform were not narrow, they were made from a canvas type of material.

School loyalty was continually reinforced with preferences. This was very evident in the consistent selection of school logos versus commercial logos on school uniform garments and accessories. Subjects wanted middle school students’ appearances to clearly identify school affiliation. Several reports on school uniform policies have reported that school uniforms increase student affiliation and pride in the schools (Loesch, 1995).

Jewelry and traditional gender boundaries was reflected in preferences. Male participants clearly showed an aversion for jewelry on male students’ ears, as only 1.9% of them selected this

option. This could be a possible reflection of the type of male that chooses to enter the corps of cadets' organization. Through appearance management (not wearing jewelry on body parts traditionally chosen by women for jewelry) these individuals do not cross traditional gender boundaries of masculinity to create ambiguity or symbolic rebellion, although the idea of males wearing earrings has become more acceptable in the last five years.

A third observation that was made of the preferences selected by the sample, was the influence current fashion trends had on the clothing selected. Khakis made a strong comeback about three years ago, in the form of fabric, color and style for pants, shorts, skirts and skorts. They were accepted as practical forms of business-casual wear, as occupational clothing of many businesses (e.g. restaurants, retailers), as well as, casual wear. Khakis came in the form of shorts and pants, and were available in a variety of different fabrics and colors. Both male and female participants in this study wanted the pants and shorts in a khaki or black color. The fabric characteristics (thin/light, stiff/crisp, soft, non-stretch) that they selected for these pants and shorts were typical of a pair of khaki pants or shorts. The influence of current fashion trends on individual preferences is evident in the female participants' choice of fabric characteristics for the shirt. They wanted a shirt that was soft, thin/light as well as stretchy. Many women's shirts are now constructed from fabrics that have small percentages of spandex fibers woven into them to give them a better fitting more comfortable fit. This preference was therefore not only influenced by fashion and technology, but also by the desire of female participants for comfort.

However, despite the apparent influence current clothing trends had on the respondents' clothing choices, many of their preferences remained very traditional. A good example of this was in the placement of the pocket on shirts and pants. Most of the male and female respondents that wanted a pocket on the shirt placed it on the upper left breast of the shirt, while almost all the participants that had wanted pockets on the pants wanted two pockets on the side seams, and one located at the left back of the pants.

Although school uniform programs have successfully been implemented into many public school systems, administrators, teachers, parents and students themselves need to be aware that the appearance of the students' uniforms communicates the standards and values compatible with the schools in question. Although this study did not find gender-based differences in value selection,

there was clear evidence that certain values are attributed to dress and in particular uniforms. The design criteria generated is evidence that the wearer preference measure developed in this study can generate design criteria based on participants preferences which means that the questionnaire can now become and an integral part of a participatory or interactive system of choosing uniforms in schools that want to adopt them. This system would help overcome two barriers: (1) The reluctance of participants to wear uniforms, because they vested in choice, and (2) The enforcement of the uniform.

### Implications

This study revealed that there were no significant differences in the value selections of uniformed males and females. These findings may suggest that the values reinforced by military organizations are not gender-specific, and that the uniform when utilized in the school environment may become a socialization tool in that it may reinforce and encourage in children the values and beliefs that were once instilled in the home. Institutionally compatible values are reinforced to the same degree among the male and female members of the organization. The high ratings received by the values self-respect and happiness suggests an awareness of self and purpose among uniformed individuals. These findings also imply that men's and women's choices are genderless and that their preferences are a reflection of their equality and concomitant changing lifestyles. Values are also genderless, and the preferences reflect this. A genderless classroom reflected in genderless uniforms should remove yet another barrier to equality and performance.

Design criteria composites imply that the wearer preference measure developed and used in this study is a viable instrument for determining uniform design preferences. Therefore, this measure may be used to realize the goals of the larger study: to develop an interactive or participatory design system for schools that want to select uniforms for adoption. The findings in this study revealed that many of the uniform design preferences selected by the respondents were reflective of their own uniforms suggesting that clothing experience was a determinant of clothing choice.

## Limitations

The following limitations of the data provided by this study are noted:

- (1) The use of a convenience sample may have limited the generalizability of this study.
- (2) The generalizability was limited by the use of one corps of cadets organization in one area of the country.
- (3) Sampling error may have been increased by the unequal sub samples for males and females.
- (4) The time of year the survey was administered influenced choices.

## Recommendations

Wearer Preference Measure:

- (1) Belts could be further developed with questions on color and fabric characteristics not just fabric patterns.
- (2) Neckties could be further explored with questions on color, fabric characteristics, logo types and logo location.
- (3) The section on shirts maybe split up into two parts: (1) shirts for warmer weather, and (2) shirts for cooler temperatures. This would remove any ambiguity when it came to the question of seasonal clothing. In addition, removal of the question that dealt with types of necklines is necessary if other collar styles are not given as options, because neckline position has no influence on the placement or style of a classic convertible collar on a shirt.
- (4) Each garment investigated in the section on over garments (sweaters, sweatshirts, vests, and blazers) and lower body garments (pants and shorts, skirts and skorts) could have its own section that explores pockets, pocket locations, fabric patterns, colors and characteristics. This would be instead of having these questions asked at the end of a whole section of questions on a number of garments. It may more accurately reflect the preferences of the participants because they wouldn't have to go back into the questionnaire or try and remember what garment it is they are filling out fabric and color descriptors for.
- (5) Jackets and coats could be separated into two separate sections, and one garment assigned for warmer weather while the other is for cooler weather temperatures.

- (6) Long pants and shorts could be divided into two sections. Pants would be garments for cooler weather temperatures, while shorts would be for warmer temperatures.
- (7) The types of garments (shorts, jogging pants etc) that participants want for gym wear may be more fully investigated.
- (8) The fabric descriptors that are evident in each section of the wearer preference measure such as thin/light and stiff/crisp may be separated from each other because each descriptor carries its own definition and therefore has unique values. In addition, questions that explore the insulation properties of fabric may be incorporated into this group of descriptors. (Logo types and locations on shirts, sweaters, over garments, lower body garments, pants and shorts and gym wear may also be investigated.)
- (9) Fabric descriptors for the shirts may include questions on fabric opacity, to clear up any misinterpretation of transparency being linked to fabric characteristics such as thin or light.

The following presents suggestions for future research studies:

- (1) Replication of this study with a larger sample size.
- (2) This study was limited to one corps of cadets organization in a small region of the country. Future research could increase the number of corps of cadets organizations and expand the geographical location. The effects of geographic location on uniform design preferences and value selection between the sexes may then be investigated.
- (3) Future research may also investigate the role of age on uniform design preferences and value selection between the sexes.
- (4) A comparison study could be conducted between the uniform design preferences and value selections of uniform-wearing students versus students that were non-uniform wearers.
- (5) Future research could test the direct relationship between value selection and clothing choice.

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**APPENDIX A**  
**Consent Forms**

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY**

**Informed Consent for Participants of Investigative Projects**

**Title of Project:** School Uniform Design Preferences of Uniform Wearers  
And Terminal Values Attributed to Them

**Investigators:** Angela Uriyo & Joann Boles

I am graduate student in the Department of Near Environments at Virginia Tech and am currently conducting research on school uniform design preferences for my thesis. You are invited to participate in an investigation on the primary values of middle school students as they relate to their choices of school uniform design. This study is being conducted as part of a larger study that focuses upon developing an interactive uniform design preference measure for public schools that want to adopt uniforms.

This study requires the completion of the attached questionnaire. The questionnaire will require about 30 minutes to complete. No guarantee of benefits has been made to encourage you to participate, so your consent is completely voluntary. You are free to withdraw from this study without penalty.

The results of this study will be kept confidential. Your responses will be used with those of other respondents to identify school uniform design preferences and their value context. The information you provide will have your name removed and only a subject number will identify you during analyses. Any written reports or publications of the research will maintain your anonymity.

This research has been approved, as required by the Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute and State University, and the Department of Near Environments.

If you have any questions about this research, contact:

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## **PARTICIPANT PERMISSION**

PLEASE SIGN THIS FORM AND LEAVE IT ATTACHED TO THE QUESTIONNAIRE

I have read and understand the conditions for this project. I hereby acknowledge the above and give my voluntary consent for my participation in this project.

By completing and returning this questionnaire I accept full responsibility for participation in this study.

Signature: \_\_\_\_\_

**VITA**  
**ANGELA URIYO**

**Date of Birth: September 4, 1976**

**Major: Clothing and Textiles**

**Degree and Date Conferred: Master of Science, August 2000**

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